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of Transportation

**National Highway  
Traffic Safety  
Administration**

400 Seventh Street, S.W.  
Washington, D.C. 20590

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ACCIDENT RESEARCH GROUP

Division of Arvin/Calspan  
[REDACTED] New York [REDACTED]

CALSPAN ON-SITE NON-DEPLOYMENT AIR BAG INVESTIGATION  
CALSPAN CASE NO. 92-20  
LOCATION - [REDACTED] ME  
ACCIDENT DATE - [REDACTED] 1992

Contract No. DTNH22-87-C-27169

Prepared for:

U.S. Department of Transportation  
National Highway Traffic Safety Administration  
Washington, D.C. 20590

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points are coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

# **TECHNICAL REPORT STANDARD TITLE PAGE**

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				14. <i>Sponsoring Agency Code</i>	
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16. <i>Abstract</i>  This on-site investigation focused on a low-speed crash that involved a police 1992 Chevrolet Caprice that was equipped with a Supplemental Inflatable Restraint (SIR) system which consisted of a driver's side air bag. The vehicle impacted a wooden utility pole with the right frontal area that resulted in 28.4 cm (11.2") of bumper crush. The damage and trajectory mode of the CRASHPC program was utilized to compute an impact speed of 23 KPH (14 mph) and a total (longitudinal) velocity change of 21 KPH (13 mph). The velocity change was below the manufacturer-reported 24 KPH (15 mph) centerline pole impact deployment threshold for this vehicle and therefore, the driver air bag system did not deploy.  The driver of the vehicle was a 50 year old on-duty police officer. He was wearing a bulletproof vest; however, he was not wearing the manual 3-point lap and shoulder belt system. At impact, he initiated a forward trajectory and loaded the steering assembly with his thoracic area. His loading force compressed the energy absorbing steering column 2.4 cm (1") and deformed the upper steering wheel rim .6 cm (0.3"). The driver sustained a small laceration of the left face (AIS-1) and an abrasion of the dorsal aspect of the right wrist (AIS-1). His loading force against the steering wheel compressed his upper abdominal and thoracic area which produced brief traumatic apnea. He was subsequently transported by a police vehicle to a local hospital where he was examined for injury and released.					
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**CALSPAN ON-SITE NON-DEPLOYMENT AIR BAG INVESTIGATION**  
**CALSPAN CASE NO. 92-20**  
**VEHICLE - POLICE 1992 CHEVROLET CAPRICE**  
**LOCATION - [REDACTED] ME**

**SUMMARY**

The single vehicle crash occurred on a two-lane urban street in the Village of [REDACTED] Maine on [REDACTED], [REDACTED], 1992 during daylight hours. The dry, asphalt road surface was straight and level with a 40 KPH (25 mph) speed limit. The involved vehicle was a marked police 1992 Chevrolet Caprice (VIN [REDACTED]) that was equipped with a Supplemental Inflatable Restraint (SIR) system which consisted of a driver's side air bag with manual B-pillar mounted 3-point lap and shoulder belts. At the time of the crash, the vehicle had an odometer reading of 33,450 km (20,776.4 miles).

The vehicle was driven by a 50 year old male police officer with a height of 175.3 cm (69 in.) and weight of 76.5 kg (170 lbs.). He was not wearing the manual 3-point lap and shoulder belt system. The officer was exiting the police station parking lot to begin routine patrol in his assigned area. As he approached the two-lane north/south roadway, he initiated a right turn onto the northbound travel lane. During the turning maneuver, his portable radio and a clipboard had fallen between the front seat cushions and against the emergency light switch panel. The officer reached for these items with his right hand and momentarily diverted his attention from the driving task. As a result of his reaching action, his left hand turned the steering wheel in a clockwise direction which caused the vehicle to drift to the right and departed the roadedge.

The right front bumper area of the Chevrolet Caprice impacted a 25.4 cm (10") diameter wooden utility pole that was located 0.4 m (1'4") outboard of the right roadedge. The officer estimated his impact speed at 15-20 mph. The 12 o'clock direction of force impact produced a maximum of 28.4 cm (11.2") of bumper crush located 41.7 cm (16.4") right of center. Direct contact damage began 23.9 cm (9.4") right of center and extended 31.8 cm (12.5") to the vehicle's right. The combined induced and direct contact damage was 164.5 cm (64.75") which involved the entire width of the front bumper. Crush values at bumper level were as follows:  $c_1=2.3$  cm (.9"),  $c_2=6.1$  cm (2.4"),  $c_3=12.4$  cm (4.9"),  $c_4=20.1$  cm (7.9"),  $c_5=20.1$  cm (7.9"),  $c_6=6.1$  cm (3.0"). Damaged components included the front bumper facia, bumper reinforcement bar, grille, right headlamp assembly, radiator support panel, and the hood. The preliminary repair estimate was \$3,522.57.

## SUMMARY (CONT'D.)

The trajectory mode of the CRASHPC program was used to compute velocity estimates for the Chevrolet Caprice. Based on the crush data and impact and final rest positions, the Caprice impacted the pole at a CRASHPC generated speed of 23 KPH (14 mph) and underwent a velocity change of 21 KPH (13 mph). The impact did not fracture the wooden utility pole, however, its base was displaced 7 cm (2.75 in.). The SIR system had a manufacturer-reported centerline pole impact deployment threshold of 24 kph (15 mph) therefore, the vehicle did not sustain a sufficient longitudinal deceleration that is required to deploy the driver's air bag system.

The unrestrained driver of the vehicle was slightly out of position to his right at impact. He was wearing a bullet proof vest which consisted of 14 layers of Kevlar. The driver responded to the frontal impact force and loaded the steering assembly with his upper abdominal and thoracic areas. His loading force compressed the energy absorbing steering column 2.5 cm (1") and deformed the upper rim .6 cm (.25") forward. The vest distributed the loading force over a larger body area which reduced the probability of injury. As a result of the steering wheel loading, the driver sustained brief traumatic apnea (loss of breath) and that no visible injury occurred. He did sustain a superficial laceration of the left face from a pen that was displaced from his left shirt pocket. He also sustained an abrasion of the dorsal aspect of the right wrist from contact with the center mounted police radio equipment. There was no evidence of contact to the radio equipment. As a precautionary measure, the driver was transported to a local hospital by another police unit where he was examined for injury and released.

The [REDACTED] of [REDACTED] of the [REDACTED] Department was concerned that the air bag system did not deploy as a result of the frontal crash. Prior to our inspection, the body shop had removed the battery from the vehicle. The Chief stated that the air bag indicator lamp has flashed a normal sequence each time the vehicle was started prior to the crash. After the crash, the indicator lamp flashed in the same sequence for a 6-8 second period, then went out and stayed out indicating a normal operating system.

A local diagnostic technician was available to test the SIR system. He used an electronic, hand-held test unit, an OTC Monitor 4000E with a Domestic Pathfinder Software package for 79-92 GM, Ford, and Chrysler products. The diagnostic test did not detect any current or long term fault codes in the "history" mode of the SIR's diagnostics (DERM).

## SUMMARY (CONT'D.)

Based on the CRASHPC generated velocity change and the diagnostic test of the SIR, we concluded that the vehicle did not sustain a sufficient deceleration that was required to deploy the SIR system.

During our on-site investigation of this non-deployment crash, the Chief of Police identified a survey that was being conducted by the City of ██████████ CA., regarding non-deployment crashes of similar '91-'92 Chevrolet Caprices. The Santa Ana Police Department had two '91 Caprices involved in frontal crashes in which the air bags failed to deploy. One of the vehicles sustained moderate frontal damage as a result of a pole impact which produced approximately 50.8 cm (20") of bumper crush. The second vehicle sustained less severe damage from a vehicle-to-vehicle crash.

The city's fleet manager contacted the regional office of the Chevrolet Motor Division and reported the non-deployment crash. The regional fleet service manager responded to the complaint and inspected the involved vehicles and tested the SIR's diagnostic systems. His inspection concluded that the SIRs were functioning properly before, during, and after the crashes and that the vehicles did not sustain a deceleration of sufficient magnitude to deploy the SIR.

A copy of the fleet service manager's letter to the City of ██████████ is included as Appendix F of this report. Also included with this appendix is a photograph of the vehicle involved in the pole crash and the teletype message that was sent to all police agencies by the ██████████ Police Department.

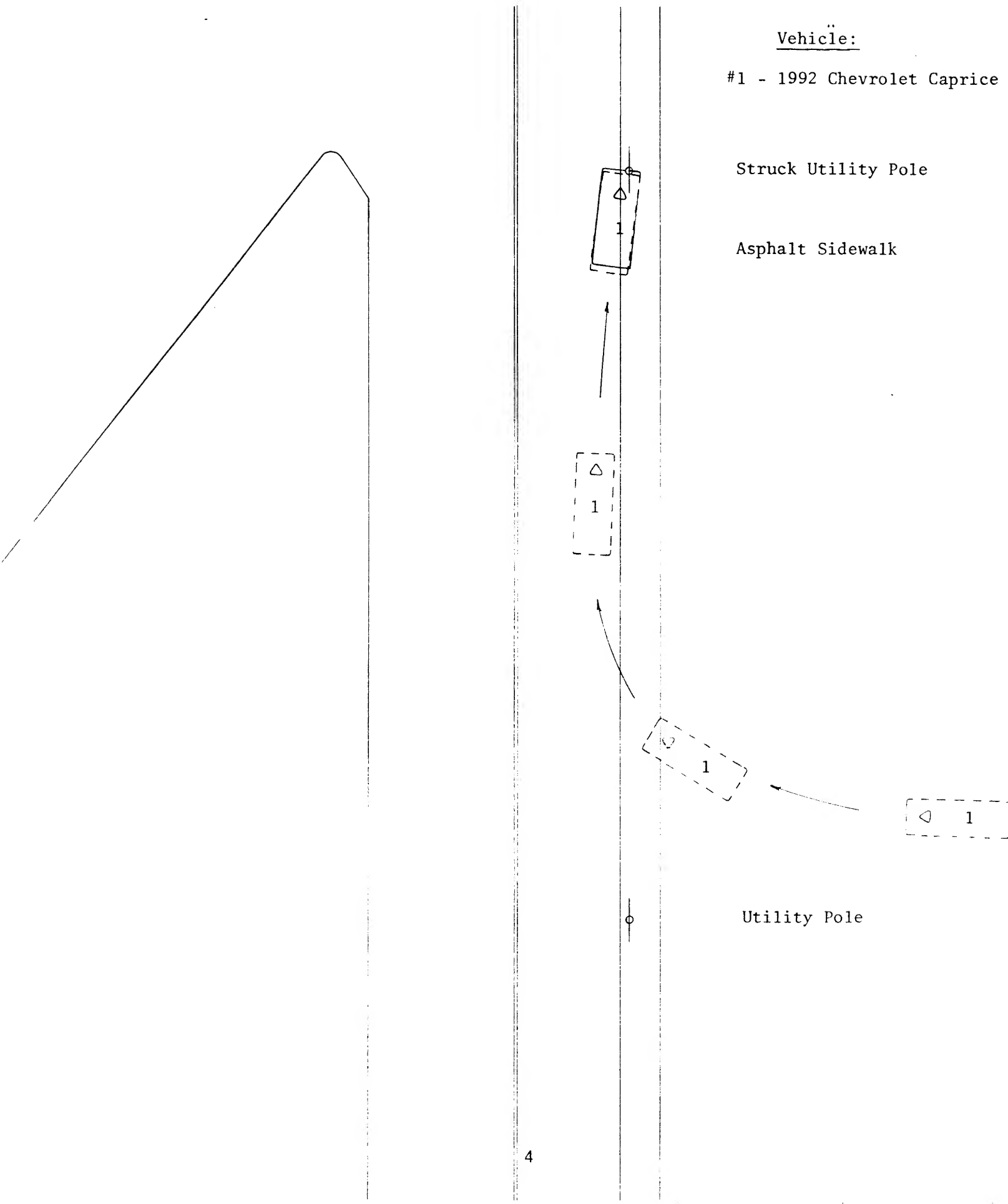
Accident Schematic  
Calspan Case No.92-20

Vehicle:

#1 - 1992 Chevrolet Caprice

Struck Utility Pole

Asphalt Sidewalk



CALSPAN ON-SITE NON-DEPLOYMENT AIR BAG INVESTIGATION  
CALSPAN CASE NO. 92-20  
VEHICLE - POLICE 1992 CHEVROLET CAPRICE  
LOCATION - [REDACTED] ME

CRASH DATA

Location: Urban two-lane village street  
City/Township: [REDACTED], ME  
Area/Type: Urban/Commercial  
Accident Date/Time: [REDACTED] 1992,  
daylight hours  
Investigating Police Agency: [REDACTED] State Police  
Accident Type: Car/Utility pole, right frontal  
impact  
Air Bag Vehicle Driver Injury Severity: Minor (AIS-1)

AMBIENCE

Viewing Conditions: Daylight  
Weather: Overcast  
Precipitation: None  
Road Surface: Dry

HIGHWAY

Type: Village street  
Number of Lanes: 2  
Width: 12.6m (41'6")  
Surface: Asphalt  
Median: None


**HIGHWAY (CONT'D.)**

Edge:	West edge - 15cm (6") barrier curb
	East edge - Asphalt parking lot
Vertical Alignment:	Level
Horizontal Alignment:	Straight
Estimated Coefficient of Friction:	.75
Traffic Density:	No other traffic

**TRAFFIC CONTROLS**

Signals:	None
Signs:	None
Markings:	Double yellow centerlines
Speed Limit:	40 KPH (25 mph)

**VEHICLE**

Description:	1992 Chevrolet Caprice, 4 dr. sedan with police package (marked unit)
V.I.N.:	1G1BL537XNW (production number deleted)
Date of Manufacture:	 1992
Color:	Blue
Odometer:	33,450 km (20,776.4 miles)
Engine:	8 cylinder, 5.7 liter
Transmission:	4-speed automatic overdrive
Steering:	Power with tilt column
Brakes:	Power-assisted front disc, rear drum with anti-lock

## VEHICLE (CONT'D.)

Padding:	Upper and mid instrument panel, soft edged steering wheel rim and air bag module assembly, headliner, sunvisors, door panels, door armrests, adjustable head restraints
Manual Restraints:	3-point lap and shoulder belts in the four outboard seated positions, center rear lap belt
Automatic Restraints:	Supplemental Inflatable Restraint (SIR) system which consisted of a driver's side air bag. The system did not deploy as a result of the 21 KPH (13 mph) $\Delta V$ frontal impact sequence
Defects:	None
Tow Status:	Towed due to vehicle damage

## VEHICLE DAMAGE

Exterior: The right frontal area of the 1992 Chevrolet Caprice impacted a 26.7cm (10.5") diameter wooden utility pole that was located 0.4m (1.3') outboard of the right roadedge. Direct contact damage began on the front bumper fascia 23.9cm (9.4") right of center and extended 31.8cm (12.5") to the right. The contact damage extended vertically onto the headlamp lens, grille and hood face. The 12 o'clock direction of force impact crushed the bumper reinforcement bar to a maximum depth of 28.4cm (11.2"), located 41.7cm (16.4") right of center. As a result of the impact with the narrow object, the entire width of the bumper was displaced. The combined induced and direct contact damage length was 164.5cm (64.75"). Crush values at bumper level were as follows:

$C_1 = 2.3\text{cm (0.9")}$ ,  $C_2 = 6.1\text{cm (2.4")}$ ,  
 $C_3 = 23.4\text{cm (4.9")}$ ,  $C_4 = 20.1\text{cm (7.9")}$ ,  
 $C_5 = 20.1\text{cm (7.9")}$ ,  $C_6 = 7.6\text{cm (3.0")}$ .



## VEHICLE DAMAGE (CONT'D.)

### E x t e r i o r (cont'd.):

The utility pole impact buckled the upper rail of the radiator support panel and displaced the right frame rail which resulted in a 1cm (0.4") reduction of the right wheelbase. Damaged components included the front bumper facia, bumper reinforcement bar, both front bumper energy absorbing devices (EADs), right frame rail, right headlamp assembly, grille, radiator support panel, and the hood. The radiator, air conditioning condensor and the battery, all located directly rearward of the pole impact damage, were not damaged by the crash.

### CDC:

#### Object Struck

#### Event Number

Utility Pole 12-FZEW-1 1

### Repair Cost:

\$3522.57 inclusive of right front discriminating sensor

### Interior:

The interior of the Chevrolet Caprice sustained minor damage that was associated solely with occupant contact. The unrestrained driver initiated a forward trajectory in response to the 12 o'clock impact force and loaded the steering wheel rim and air bag module assembly. His loading force minimally displaced the upper steering wheel rim 0.6cm (.25") forward and compressed the energy absorbing steering column 2.5cm (1"). Prior to our inspection, the body shop disassembled the knee bolster and the shear capsules (blocks removed) to inspect the column for damage. There was no damage to the bolster assembly.

## SUPPLEMENTAL INFLATABLE RESTRAINT SYSTEM

The [REDACTED] Police 1992 Chevrolet Caprice patrol vehicle was equipped with a General Motors Supplemental Inflatable Restraint (SIR) system that consisted of a driver's side air bag. The system did not deploy as a result of the vehicle's frontal impact sequence with a utility pole that yielded a CRASHPC generated velocity change of 20.4 KPH (12.7 mph). The velocity change was below the required deployment threshold of 22.5-24 KPH (14-15 mph).

The SIR system consisted of two discriminating (crash) sensors, a secondary arming (safety) sensor, a diagnostic unit with an indicator lamp, the steering wheel mounted air bag module assembly, and a knee bolster. The discriminating sensors were mounted to the radiator support panel and were located behind the opening for the headlamps. The discriminating sensors are calibrated to close with velocity changes that are severe enough to warrant deployment of the SIR. The arming sensor was mounted under the instrument panel, adjacent to the steering column. This sensor is a protective switch that closes at a lower velocity change than the discriminating sensors. Closure of either discriminating sensor and the arming sensor is required to deploy the SIR.

The system is monitored by a diagnostic energy reserve module (DERM) that is mounted under the instrument panel, left of the steering column. If the DERM detects a fault within the SIR system, it will flash a code through the indicator lamp that is mounted in the instrument cluster. Existing codes can also be read by a hand-held diagnostic computer. Prior codes stored in the history memory can only be read and cleared by using the diagnostic computer.

The SIR indicator lamp in the crash involved Chevrolet Caprice did not flash a fault code following the crash. The lamp reportedly flashed for a 6-8 second period then went out and stayed out when the ignition key was placed in the run position. This sequence indicates that the system is armed and operational. Prior to our inspection of the vehicle, the body shop had removed the battery from the vehicle to check for underlying damage. During our inspection process, the battery was reinstalled in the vehicle and the DERM was tested using the indicator lamp. With the ignition switch placed in the run position, the lamp flashed 7-9 times then went out and stayed out. This sequence indicates a normally operating system.

## SUPPLEMENTAL INFLATABLE RESTRAINT SYSTEM (CONT'D.)

A local diagnostic technician was available to test the DERM with a hand-held diagnostic computer, an OTC Monitor 4000E with a Domestic Pathfinder Software cartridge for 79-92 GM, Ford, and Chrysler products. The computer did not detect any current or long term faults in the listing mode of the DERM. The technician then disconnected the male/female connector for the right front discriminating sensor. At key, the indicator lamp flowed and stayed on indicating a fault. Using the OTC Monitor, the computer detected a fault code 35 which identifies that a discriminating sensor is open. This test was performed to verify proper operation of the derm. The connector was reattached and the system returned to its proper operating mode.

Based on the computed velocity change and the test of the DERM, we concluded that this vehicle's SIR system was operating properly at the time of the crash and that the vehicle did not sustain a sufficient deceleration that is required for deployment.

## VEHICLE VELOCITY CHANGES

Travel Speed:	24-32 KPH	(15-20 mph)	Driver estimates
Impact Speed:	23 KPH	(14 mph)	
Total $\Delta V$ :	21 KPH	(13 mph)	
Longitudinal $\Delta V$ :	-21 KPH	(-13 mph)	
Lateral $\Delta V$ :	0.0 KPH	(0.0 mph)	

Energy absorption: 33,609 joules (24,786 ft. lbs.)

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The impact speed and velocity changes were computed by the damage and trajectory algorithm of the CRASHPC program.

## COLLISION SEQUENCE

**Pre-Crash:** The driver of the 1992 Chevrolet Caprice was an on-duty police officer for the [REDACTED] Police [REDACTED]. He entered the involved patrol vehicle in the parking lot of the police station and drove approximately 91m (300') in a westerly direction across the stone parking lot. As he approached the two lane roadway, the driver initiated a right turn to proceed in a northbound direction. During the turning maneuver, the driver stated that his clipboard and portable radio had fallen between the front seat cushions against the emergency light switch panel. The driver reached for the fallen items and momentarily diverted his attention from his driving task. As he reached with his right hand, his

## **COLLISION SEQUENCE (CONT'D.)**

left hand probably turned the steering wheel in a clockwise direction which caused the vehicle to drift toward the right edge of the roadway. The driver redirected his attention forward and observed the vehicle was traveling on a trajectory toward a wooden utility pole. He braked immediately prior to impact in an attempt to avoid the impending crash

**Crash:** The right frontal area of the Chevrolet Caprice impacted a 26.7cm (10.5") diameter wooden utility pole that was located 0.4m (1.3') outboard of the right roadedge. Impact speed was computed by the damage and trajectory algorithm of the CRASHPC program at 23 KPH (14.3 mph). The vehicle impacted the pole in a tracking mode which resulted in a 12 o'clock impact force. The impact crushed the front bumper to a maximum depth of 28.4cm (11.2") and displaced the base of the pole 7cm (2.75"). The pole subsequently rebounded to its original pre-crash position and was not damaged. The CRASHPC program computed a velocity change of 21 KPH (13 mph) that was below the threshold required for air bag deployment.

**Post-Crash: Final Rest** - The Caprice came to rest against the struck utility pole facing in a northerly direction.

**Driver Activities** - The driver of the Caprice used his police radio to notify his dispatcher of the crash. He exited the vehicle and waited for an officer to arrive on-scene.

**Police Activities** - The dispatcher notified an off-duty member of the [REDACTED] Police Department of the crash. He responded to the crash scene and while en route, requested that the dispatcher notify the State Police. It was police policy to have the State Police investigate all crashes that involved departmental vehicles.

The [REDACTED] arrived on-scene and initiated his investigation. The off-duty [REDACTED] police officer arrived on-scene and checked the condition of the driver. He subsequently transported the driver to a local hospital where he was examined and released.

**Rescue Activities** - Not required.

**Scene Clearance** - Following the police investigation, a local tow agency removed the vehicle from the scene.

**HUMAN FACTORS/OCCUPANT DATA**

Driver:	50 year old male
Height:	175.3cm (69")
Weight:	76.5kg (170 lbs.)
Occupant:	Police Officer
Manual Restraint System Usage:	None
Usage Source:	Driver interview, vehicle inspection, police report
Eyewear:	None
Vehicle Familiarity:	3 months
Route Familiarity:	Daily
Trip Plan:	Routine patrol
Manner of Leaving Scene:	Police vehicle
Type of Medical Treatment:	Examined at a local hospital and released

**DRIVER INJURIES**

<u>Injury</u>	<u>Severity (OIC/AIS)</u>	<u>Source</u>
Superficial laceration the left face	Minor (FLLI-1)	Displaced pen from of left shirt pocket that resulted from steering wheel contact
Abrasion of the dorsal aspect of the right wrist	Minor (WRAI-1)	Center mounted police radio equipment
Brief traumatic apnea	Not an injury	Steering wheel loading

## DRIVER KINEMATICS

The driver of the 1992 Chevrolet Caprice was slightly out of position to his right at impact. He attempted to retrieve objects that had fallen between the front seats and against the emergency light switch panel. The driver had the seat adjusted to a mid track position and the tilt steering wheel set to a center position. He was not wearing the manual 3-point lap and shoulder belt system, however, he was wearing a bullet proof vest which consisted of 14 layers of Kevlar under his police uniform.

The driver responded to the 12 o'clock impact force by initiating a forward trajectory. His right hand and wrist area contacted the center mounted police radio units which resulted in an abrasion to the dorsal aspect of the right wrist. There was no damage or visible contact evidence to the radio units. His thoracic and upper abdominal areas loaded the steering wheel rim and the non-deployed air bag module assembly. The driver's loading force compressed the energy absorbing steering column 2.5cm (1") and deformed the upper rim approximately 0.6cm (.25"). His loading force against the steering assembly was partially absorbed and distributed by the Kevlar vest. He did, however, sustain compression of the upper abdominal area which resulted in brief traumatic apnea (loss of breath). The thoracic loading displaced a pen from the driver's left shirt pocket. As the pen was displaced, his head probably rotated downward and contacted the pen which produced a superficial laceration of his left face.

The driver rebounded from his forward trajectory and came to rest in the left front seat. Within seconds of the crash, the driver regained a normal breathing rhythm and reported the crash using his police radio.

SELECTED PRINTS



Origin of vehicle's trajectory



Vehicle's approach to the roadway





Driver initiates a right turn onto roadway





Struck utility pole



7cm (2.75") displacement of pole



Lookback view of vehicle's trajectory



Frontal view of the Chevrolet Caprice





Close-up view of the utility pole impact damage

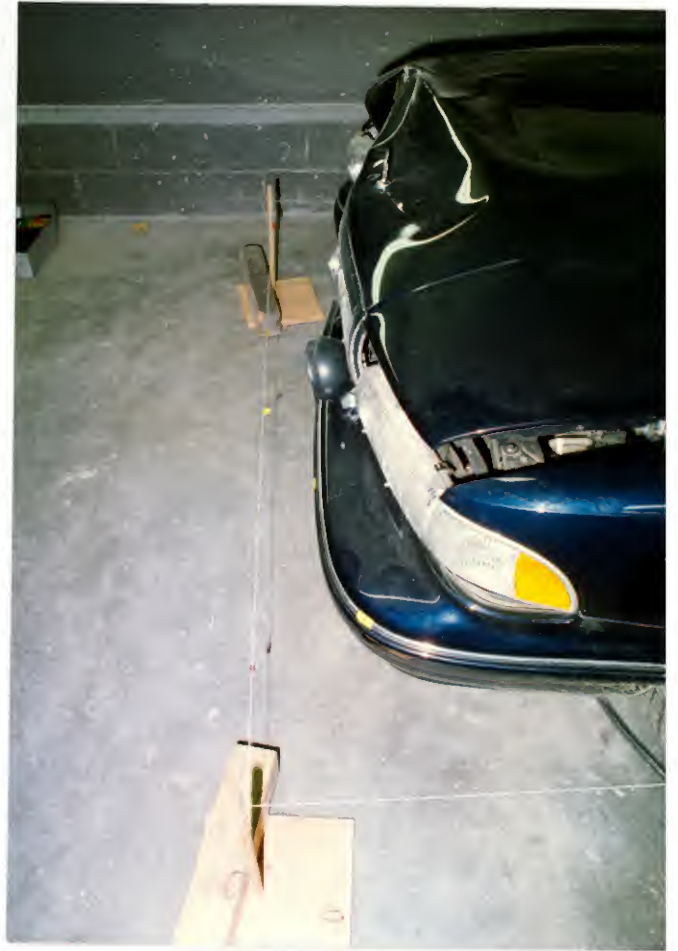


Overhead view showing the extent of crush



Front three-quarter views





Perpendicular views showing the extent of crush

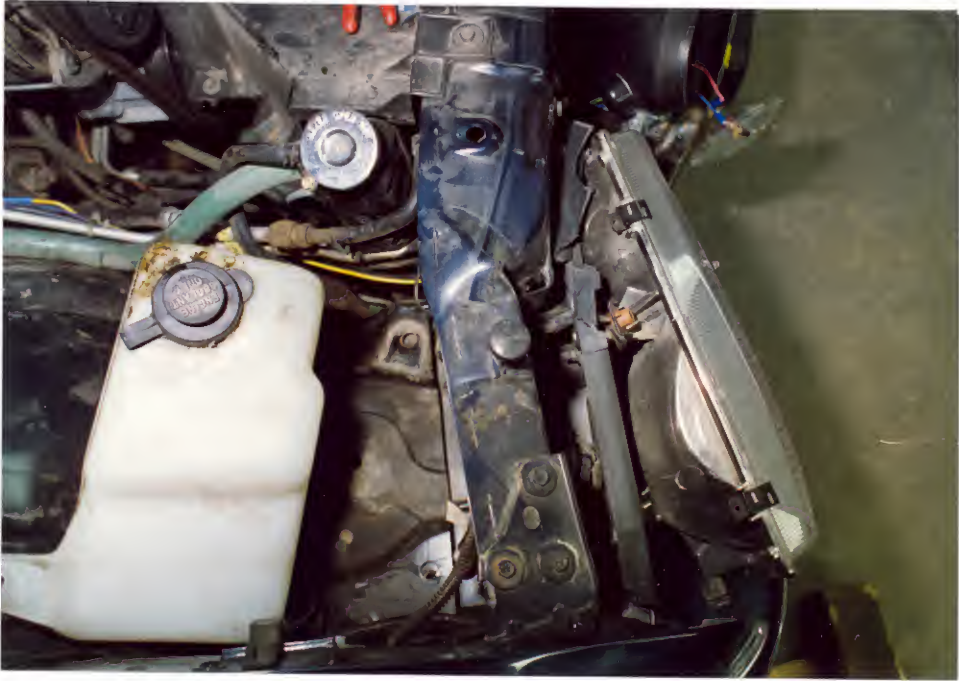


Profiles of a similar undamaged vehicle





Damaged radiator support panel of the involved Chevrolet Caprice



Area surrounding the right front air bag discriminating sensor



Right front discriminating sensor





Overall view of the driver's seated position and the non-deployed  
air bag module assembly



Driver's seat configuration and the manual 3-point belt system

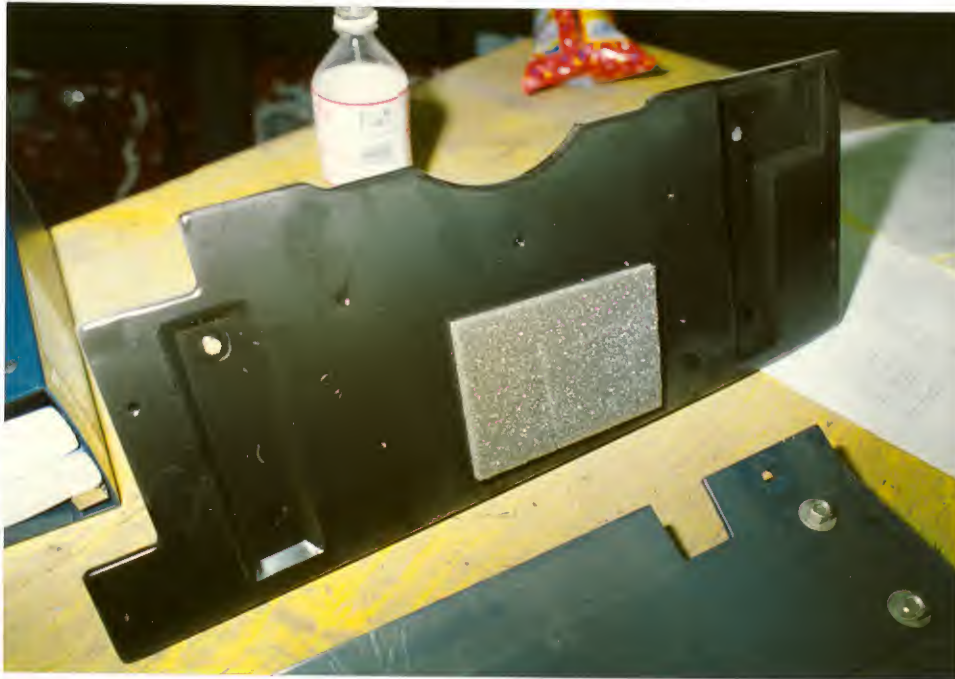


Perpendicular view of the steering wheel rim with slight deformation to the upper rim



Knee bolster cover removed from vehicle

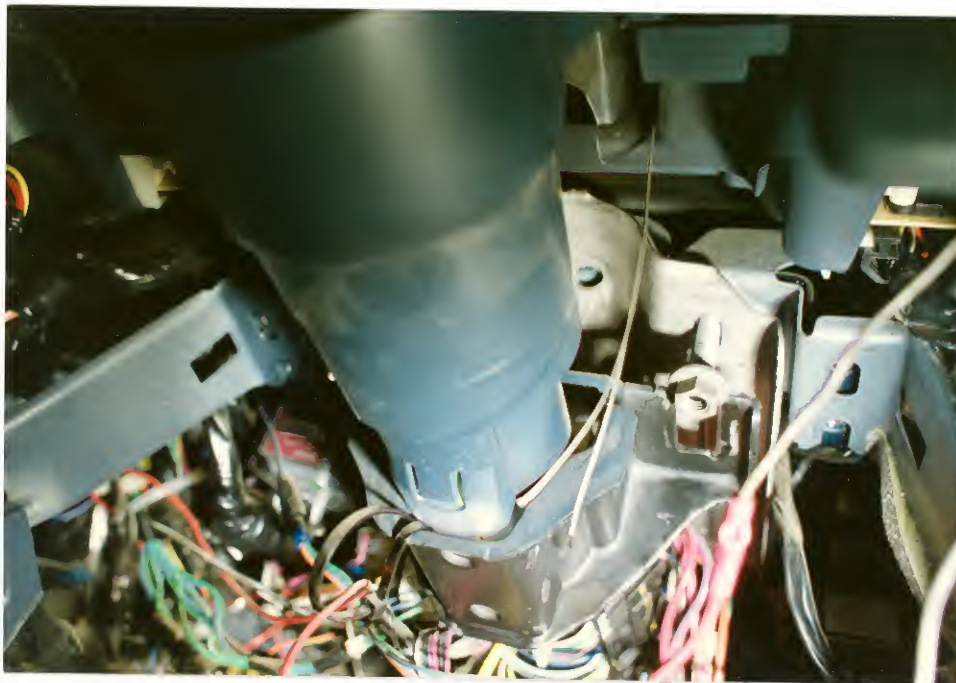
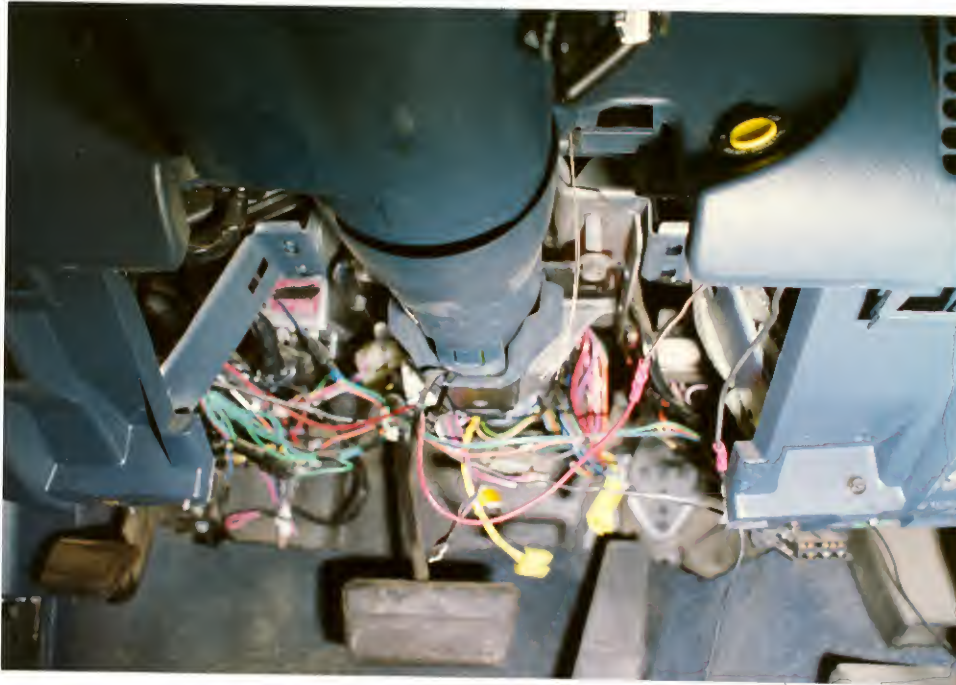




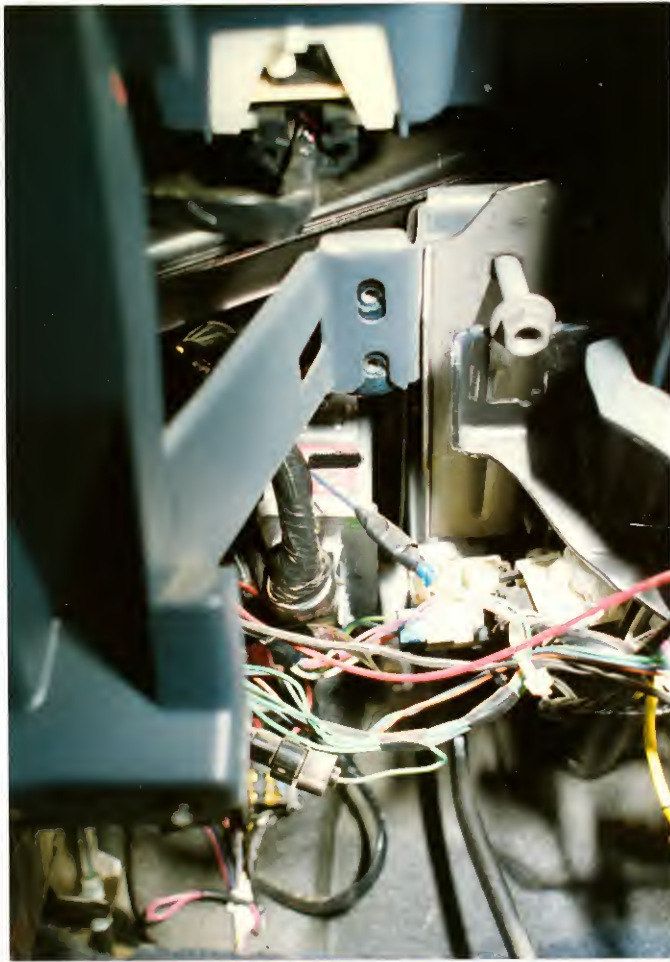
Knee bolster reinforcement



Knee bolster deflector bracket



Steering column shear capsule compression (blocks removed)  
and SIR Diagnostic Energy Reserve Module (DERM)



Close-up view of the Derm

## SLIDE INDEX

<u>Slide No(s).</u>	<u>Description</u>
1	Accident schematic
2	Driver injury mannequin
3	Lookback view of origin of trip
4,5	Vehicle exits parking lot and initiates right turn
6	Trajectory to struck pole
7	Displacement of struck pole
8	Lookback view of vehicle's trajectory
9	Frontal view of the 1992 Chevrolet Caprice
10	Close-up view of the pole impact damage
11	Displaced left frontal area
12	Left front three-quarter view
13	Left side view
14	Perpendicular view of the left frontal area showing bumper displacement
15	Left rear three-quarter view
16	Right front three-quarter view
17	Perpendicular view of the right frontal area showing the extent of crush
18,19	Upper radiator support panel displacement
20	Right front air bag discriminating (crash) sensor
21,22	Area and wiring (yellow connectors) for the left front discriminating sensor
23	Overall view of the driver's seated area
24	Perpendicular view of the steering wheel
25	Driver's seat and the stowed manual 3-point belt system
26	View across the interior from the right door area



## SLIDE INDEX

<u>Slide No(s).</u>	<u>Description</u>
27,28	Knee bolster trim cover
29	Knee bolster reinforcement
30	Knee bolster deflector
31	DERM located to the left of the steering column
32,33	Left and right shear capsule compression (blocks removed by body shop)

**MANUFACTURE  
CASE NUMBER  
YEAR**

Calspan

Ca 9220

1992

# SLIDES

**THE FOLLOWING SLIDE(S) ARE NOT INCLUDED IN THIS CASE:**

**SLIDE NUMBER(S)**

1,2





CA 9220 #3



CA 9220 #4



CA 9220 #5



CA 9220 #6



CA 9220 #7



CA 9220 #8



CA 9220 #9



CA 9220 #10





CA9220 #11



CA 9220 #12



CA 9220 #13



CA 9220 #14



CA9220 #15



CA9220 #16



CA 9220 #17



CA9220 #18





CA 9220 #19



CA 8220 #20



CA 8220 #21



CA 9220 #22



CA 9220 #23  
Best Available



CA9220 #24  
Best Available

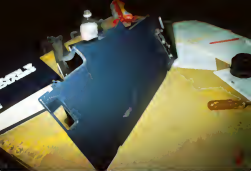


CA 9220 #25  
Best Available



CA 9220 #26  
Best Available

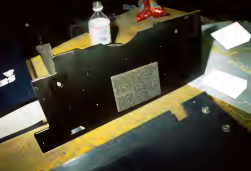




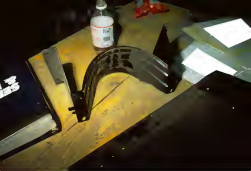
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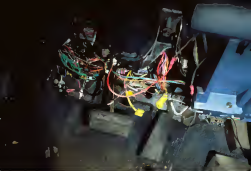
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CA 9220 #29



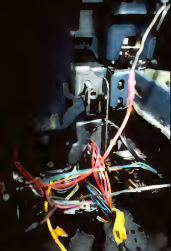
CA 9220 #30



CA 9220 #31



CA 9220 #32



CA 9220 #33

**APPENDIX A**

**Police Accident Report**



INVESTIGATING AGENCY  
CODE NUMBER

0 0 0 0 A

TRAFFIC ACCIDENT REPORT  
STATE OF MAINEDATE  
OF  
ACCIDENT

MONTH

DAY

YEAR

DAY OF WEEK

TIME

TIME REPORTED

TIME ARRIVED

ON

ROUTE

OR NAME OF STREET OR HIGHWAY

CITY OR TOWN

CODE NUMBER

COUNTY

HIT  
AND  
RUN

AT

BETWEEN NODE NUMBERS

DISTANCE FROM SCENE

TO NUMBER

MILES AND TENTHS TO LANDMARK

N  
W  
S  
E  
CIRCLE ONE

UNIT NO. 1 - VEHICLE 1

TOTAL UNITS INV 1

UNIT NO. 2 - ☐ VEH 2 ☐ PED ☐ BIKE

DRIVER'S LICENSE NUMBER 1

STATE  
ME

DRIVER'S LICENSE NUMBER 2

STATE

LAST NAME

FIRST NAME

MIDDLE

LAST NAME

FIRST NAME

MIDDLE

NUMBER AND STREET

NUMBER AND STREET

CITY

STATE

CODE NUMBER

CITY

STATE

CODE NUMBER

DATE OF BIRTH

SEX

LICENSE STATUS

REST/PERM

CLASS

DATE OF BIRTH

SEX

LICENSE STATUS

REST/PERM

CLASS

FIRST NAME - OWNER 1

MIDDLE

LAST

FIRST NAME - OWNER 2

MIDDLE

LAST

NUMBER AND STREET

NUMBER AND STREET

CITY

STATE

CITY

STATE

VEHICLE TYPE

YEAR AND MAKE

COLOR

VEHICLE TYPE

YEAR AND MAKE

COLOR

LICENSE PLATE NUMBER  
Municipal

YEAR

ISSUE STATE

NO OCCUP

LICENSE PLATE NUMBER

YEAR

ISSUE STATE

NO OCCUP

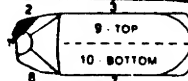
VEHICLE IDENTIFICATION NO 1G1B1537XNW

VEHICLE IDENTIFICATION NO

INSURANCE CO.

Ins. Co.

INSURANCE CO.



TOWED BY:

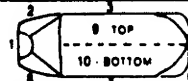
1, 2

DAMAGE CODES

Towing

\$ 1,500.00

DAMAGE ESTIMATE



TOWED BY:

1, 2

DAMAGE CODES

Towing

\$ 1,500.00

DAMAGE ESTIMATE

DESCRIPTION: Unit #1 was NB on Street. The operator leaned over to pick up an item on the floor of the passenger's side, in doing so lost visual contact with the road, veered off and struck a utility pole.

AMBULANCE CODES

NAME AND ADDRESS OF  
OWNER OF DAMAGED  
PROPERTY (OTHER THAN VEH)

TOTAL NUMBER OF PERSONS INVOLVED

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)

25 26 27 28 29 30 31 32 33 34

2 10 1 3 2 1 1 1 M 50

INVESTIGATING OFFICER (SIGNATURE)

OFFICER NUMBER

TROOP OR DEPARTMENT

APPROVED BY

DATE

Maine

## TRAFFIC ACCIDENT REPORT CODING GUIDE

1	<b>TYPE LOCATION</b> 1 Straight Road 2 Curved Road 3 Three Leg Inter. 4 Four Leg Inter. 5 Five Leg Inter. 6 Driveways 7 Bridges 8 Interchanges 9 Other		<b>PRE-ACCIDENT ACTIONS - MANEUVERS</b> <b>BY VEHICLE</b> 1 Following Roadway 2 Wrong Way into Opposing Traffic 3 Right Turn On Red 4 Left Turn On Red 5 Making Right Turn 6 Making Left Turn 7 Making U-Turn 8 Starting From Parked 9 Starting in Traffic 10 Stopping in Traffic 11 Stopped in Traffic 12 Entering Parked Position 13 Parked - Legally 14 Parked - Illegally 15 Avoiding Vehicle, Object, Pedestrian, Animal in Roadway 16 Skidding 17 Changing Lanes 18 Overtaking, Passing 19 Merging 20 Backing 21 Other Vehicle Action 22 Unknown <b>BY PEDESTRIAN</b> 41 Crossing With Signal 42 Crossing Against Signal 43 Crossing Marked Crosswalk - No Signal 44 Crossing - No Signal or Crosswalk 45 Walking in Road with Traffic 46 Walking in Road Against Traffic 47 Standing in Road 48 Emerging from behind Parked Car 49 Child Getting On-Off School Bus 50 Getting On-Off Vehicle 51 Pushing or Working on Vehicle 52 Working in Road 53 Playing in Road 54 Not in Road 55 Other Pedestrian Action 56 Unknown <b>BY BICYCLIST</b> 71 Riding with Traffic 72 Riding against Traffic 73 Making Right Turn 74 Making Left Turn 75 Making U-Turn 76 Riding Across Road 77 Slowing, Stopping, Starting in Road 78 Other Bicyclist Action 79 Unknown
	2	<b>TYPE ACCIDENT</b> 1 Object in Road 2 Rear End/Sideswipe 3 Head-on/Sideswipe 4 Intersection Movement 5 Pedestrians 6 Train 7 Ran Off Road 8 Animal 9 Bike 10 Other 11 Jackknife 12 Rollover 13 Fire 14 Submersion 15 Rock Thrown 16 Other	
3		<b>FIXED OBJECT STRUCK (IF APPLICABLE)</b> 1 Construction Barricades 2 Equipment, etc. 3 Traffic Signal 4 R.R. Crossing Device 5 Light Pole 6 Sign Structure Post 7 Mail Boxes or Posts 8 Other poles, posts, supports 9 Fire Hydrant/Parking Meter 10 Tree - Shrubbery 11 Crash Cushion 12 Median Safety Barrier 13 Bridge Piers (incl. Protective Guardrail) 14 Other Guardrails 15 Fencing (Not Median Barrier) 16 Culvert Headwall 17 Embankment, Ditch, Curb 18 Building, Wall 19 Rock Outcrops - Ledge 20 Other	
	4	<b>OTHER PROPERTY DAMAGED</b> 1 State Property 2 Utilities Property 3 Other (Private) 4 Unknown	
5		<b>TRAFFIC CONTROL DEVICE</b> 1 Traffic Signals (Stop & Go) 2 Traffic Signals (Flashing) 3 Overhead Flashers 4 Stop Signs - All Approaches 5 Stop Sign - Other 6 Yield Sign 7 Curve Warning Sign 8 Officer Flagman, School Patrol 9 School Bus Stop Arm 10 School Zone Sign 11 R.R. Crossing Device 12 No Passing Zone 13 None 14 Other	
	6	<b>LIGHT</b> 1 Dawn (Morning) 2 Daylight 3 Dusk (Evening) 4 Dark (Street Lights On) 5 Dark (No Street Lights) 6 Dark (Street Lights Off) 7 Other	
7		<b>WEATHER - ATMOSPHERE</b> 1 Clear 2 Rain 3 Snow 4 Sleet, Hail, Freezing Rain 5 Fog, Smog, Smoke 6 Severe Cross Winds 7 Blowing Sand or Dust 8 Cloudy 9 Other	
	8	<b>ROAD SURFACE</b> 1 Dry 2 Wet 3 Snow, Slush - Sanded 4 Ice, Packed Snow - Sanded 5 Muddy 6 Debris 7 Oily 8 Snow, Slush - Not Sanded 9 Ice, Packed Snow - Not Sanded 10 Other	
9		<b>ROAD CHARACTER</b> 1 Level Straight 2 Level Curved 3 On Grade Straight 4 On Grade Curved 5 Top of Hill Straight 6 Top of Hill Curved 7 Bottom of Hill Straight 8 Bottom of Hill Curved 9 Other	
	10	<b>ROAD WORK</b> 1 None 2 Construction Zone 3 Maintenance Area 4 Utility Work Area	
11		<b>SPEED LIMIT</b> 1 Not Posted - 25 Zone 2 Not Posted - 45 Zone 3 Unknown 4 Posted - Code Posted Limit	
	12	<b>EMERGENCY VEHICLE INVOLVED</b> 1 No 2 Police Vehicle 3 Ambulance 4 Fire Dept. Ven. 5 Wrecker (Enroute To or At Scene) 6 Other	
13		<b>TYPE INJURY (MOST SEVERE)</b> 1 Amputation 2 Bleeding 3 Broken Bones 4 Burns 5 Concussion 6 Shock 7 Dizziness 8 Abrasions/Bruses 9 Complaint of Pain 10 Other	
	14	<b>AREA OF INJURY (MOST SEVERE)</b> 1 Face 2 Head 3 Neck 4 Back 5 Arms/Legs 6 Legs 7 Chest/Stomach 8 Internal 9 Entire Body 10 Other	
15		<b>HAZARDOUS SUBSTANCE</b> 1 None Involved 2 Involved: Include Type in Description	
	16	<b>SAFETY EQUIPMENT USAGE</b> 1 Restraint Device Installed - Used 2 Restraint Device Installed - Not Used 3 Restraint Device Not Installed 4 Child Restraint 5 Air Bags 6 Unknown 7 Helmet Used 8 Helmet Not Used	
17		<b>WHICH VEHICLE OCCUPIED</b> 1 Veh. No. 1 2 Veh. No. 2 3 Veh. No. 3 (Etc.) 4 Pedestrian 5 Last Known Operator 21 Bicyclist 22 Witness 23 Other	
	18	<b>EJECTION FROM VEHICLE</b> 1 Not Ejected 2 Partially Ejected 3 Ejected 4 Trapped - Extricated	
19		<b>POSITION IN VEHICLE</b> STANDARD VEH. 1 Driver 2-7 Passenger 8 Ride/Hang On Veh. MC/BK/SN/MOBILE 9 Driver 10 Passenger 11 Sidecar/Sid./Hang On Veh. 	
	20	<b>INJURY TYPE</b> 1 Killed 2 Incapacitating 3 Non-Incapacitating 4 Possible Injury 5 No Injury	
21		<b>INJURY INFO SOURCE</b> 1 Officer Observation 2 Individual Statement 3 Medical - Para Medical Personnel	
	22	<b>SEX - 33</b> M or F	
23		<b>AGE - 34</b>	
	24	<b>NAMES OF ALL PERSONS INVOLVED (DRIVERS PASSENGERS WITNESSES PEDESTRIANS)</b>	
25			
	26		
27			
	28		
29			
	30		
31			
	32		
33			
	34		

INVESTIGATING OFFICER (SIGNATURE)

OFFICER NUMBER

TROOP OR DEPARTMENT

APPROVED BY

DATE

[REDACTED] POLICE DEPARTMENT  
COMPLAINT REPORT

DATE: [REDACTED]-[REDACTED]-92 PAGE 1 OF 1  
COMPLAINANT: [REDACTED] Police Dept NO: [REDACTED]  
ADDRESS: [REDACTED] PHONE: [REDACTED]  
[REDACTED], Me

INCIDENT: Cruiser Accident LOCATION: [REDACTED] St

DATE & TIME: [REDACTED]-[REDACTED]-92/[REDACTED] REPORTED BY: [REDACTED]

VEH YR: 1992 MAKE: Chevrolet MODEL: 4 dr COLOR: blu  
REG: Mui/400014 STATE: Me OWNER: Town of [REDACTED], Me

DRIVER: [REDACTED] DOB/[REDACTED]  
ADDRESS: [REDACTED]

RAC: Cau SEX: M HGT: [REDACTED] WGT: [REDACTED] HAIR: Bro EYES: Bro

While on routine patrol in cruiser #2, a 1992 Chevrolet, I was northbound on [REDACTED] St enroute to pick up the duty officer who was coming on duty. A portable radio and clipboard had fallen down between the front seats. I was reaching for them as they were blocking the emergency light switches.

The car began to drift off to the right side of the roadway while my attention was diverted. When I looked up the car was heading directly towards the utility pole located in front of [REDACTED] shop on [REDACTED] St. I attempted to apply the brakes; however I was unable to stop the car in time. The vehicle struck the pole by the passenger's side headlight area damaging the grill, hood and fender. My estimated speed was 15-20 MPH at the time of the accident.

Sgt [REDACTED] was called to conduct the investigation. He, in turn, called to have the State Police investigate the accident according to Department policy. Sgt [REDACTED] then transported me to [REDACTED] Hospital to be checked for injuries as the air bag had not deployed and I had received some cuts and bruises.

The car was taken to [REDACTED] where it could be secured until the Chief was able to conduct his investigation.

OFFICER:

DATE:

[REDACTED] POLICE DEPARTMENT  
COMPLAINT SUPPLEMENT

COMPLAINANT: [REDACTED] Police  
ADDRESS: [REDACTED] St  
[REDACTED], Me  
OFFENSE: 10-50 Car #2  
OFFICER: Sgt. [REDACTED]

PAGE: 1  
PHONE: [REDACTED]  
NO:  
NO:

On [REDACTED]-92 at [REDACTED] PM I was called at home by [REDACTED] Dispatch to inform me that [REDACTED] Officer [REDACTED] had been involved in an accident with one of the town's police cruisers. Dispatcher [REDACTED] informed me that she had already tried to contact Chief [REDACTED] and Lt [REDACTED] with no luck. I asked if Officer [REDACTED] was hurt and was told that he stated that he was alright, just shaken up. I advised Dispatch that I would be enroute to the scene.

While enroute I informed Dispatch that I did not want the vehicle moved and requested they contact the [REDACTED] Police and ask if they would send a Trooper to the scene to do the accident investigation. At [REDACTED] hrs I was informed that Trooper [REDACTED] of the [REDACTED] Police would be enroute.

Upon my arrival Trooper [REDACTED] was already on the scene and was speaking with Officer [REDACTED], who was seated in Trooper [REDACTED] cruiser.

I spoke with Officer [REDACTED], who appeared shaken, and asked if he was alright. He stated, "Yes, it just knocked the wind out of me". I asked if he struck the steering wheel with his chest; he stated he had, but he had his vest on which absorbed the blow. I then told Officer [REDACTED] that I thought that it would be a good idea if he went to the hospital and got checked just to make sure. He agreed to go to the hospital with me.

I then looked at the scene and the damage to the cruiser. The vehicle struck the pole to the right of the center of the vehicle.

Also on the scene were Officer [REDACTED] of the [REDACTED] Police and [REDACTED] of [REDACTED] garage.

When Trooper [REDACTED] was done speaking with Officer [REDACTED] and taking pictures of the scene I took Officer [REDACTED] to the hospital. Officer [REDACTED] was seen by a doctor and told he was alright and could return to work. I then took Officer [REDACTED] back to his car to return home.

I secured at [REDACTED] hrs and returned home where I attempted to contact the Chief but he was out of town. I then contacted Selectmen [REDACTED] [REDACTED] to make him aware of what had occurred. Mr. [REDACTED] thanked me for calling him but told me to do what I had to do; I was in charge in the Chief's absence.

On [REDACTED] at 2030 hrs I spoke with [REDACTED] [REDACTED] by phone and gave him a brief synopsis of what is contained in this report.

**APPENDIX B**

**Air Bag Supplement**

## ACCIDENT SUMMARY

ACCIDENT DATE      /      / 92

POLICE INVESTIGATED (1,2,9)\*

     POLICECity      County     

## GENERAL LOCALITY

- (1) Freeway, Limited Access  
(2) Urban (City)  
(3) Urban-Rural (mixed)  
(4) Rural, Fields

## CONFIGURATION (First Harm)

- (0) Struck Object or Pedestrian  
(1) Rear-End  
(2) Head-On  
(3) Rear-to-Rear  
(4) Angle  
(5) Sideswipe-Same Direction  
(6) Sideswipe-Opposite Direct.  
(7) NonCollision Fell from Veh  
(8) NonImpact Deployment  
(9) Unknown

## FIRE INVOLVED (0) None

- (1) AirBag Vehicle  
(2) Other Vehicle  
(3) Both Vehicles  
(9) Unknown

NUMBER: VEHICLES INVOLVED

(8)=8 or more

PERSONS INVOLVED

INJURED PERSONS

MAXIMUM AIS IN ACCIDENT

OTHER VEHICLE: MAXIMUM AIS

PRIME/DEPLOY IMPACT w AB VEH:  
EVENT NUMBERCDC                              

TOTAL DELTA-V

Model Year, Make, Model, Body Type:

## AIRBAG VEHICLE INSPECTION

DATE VEH. INSPECTED      / 92

## REASON VEHICLE NOT INSPECTED

- (0) Not Required  
(1) Inspection Completed  
(2) Cannot be Located\*\*  
(3) Repaired or Destroyed\*\*  
(5) Refusal or Impounded\*\*  
(7) Other\*

\*\*Specify:     

## IMPACT DATA OBTAINED

- (0) No Data Obtained  
(1) CDC Only  
(2) Crush Profile Only  
(3) Trajectory Data Only  
(4) CDC and Crush Profile  
(5) CDC and Trajectory  
(6) Crush and Trajectory  
(7) CDC, Crush & Trajectory

## BASIS OF DELTA-V

- (0) Not Computed (Unknown Why)  
(1) CRASH - Damage Only  
(2) CRASH - Damage+Trajectory  
(3) Missing Vehicle Algorithm  
(4) Yielding Object Algorithm  
(5) Unknown Basis  
(6) One Vehicle Beyond Scope  
(7) Collision Beyond Scope  
(8) Insufficient Data

## VEHICLE HISTORY

HAS AIRBAG VEHICLE BEEN IN  
ANY PRIOR IMPACTS (1,2,9)\*HAS ANY PRIOR MAINTENANCE/SERVICE  
BEEN PERFORMED ON SYSTEM(1,2,9)\*\*Describe:     

AIRBAG VEHICLE: FLEET GM POLICE

VIN 1G1BL537XN0MILEAGE 20,726.4

**SYSTEM READINESS LAMP**  
(In Instrument Cluster)

**PRE-IMPACT LAMP CONDITION**

- (1) Functioning/ProvedOut
- (2) Inoperative
- (9) Unknown

**DRIVER'S REPORT OF  
PRE-IMPACT FLASHING**

- (00) No Flashing Reported
- (01) Continuous Flashing
- (02) -- >Number of Flashes
- (11)
- (12) Constant Light
- (19) Flashing, Unkn Number
- (88) Not App (system removed)
- (99) Unknown

**PERIOD OF PRE-IMPACT FLASHING**

- (0) No Flashing
- (1) Same Day as Impact
- (2) Prior Day
- (3) Prior Two Days
- (4) Prior Week
- (5) Prior Month
- (6) Over One Month
- (9) Unknown

**POST-IMPACT LAMP CONDITION**

- (1) Functioning/ProvedOut
- (2) Inoperative
- (9) Unknown

**POST-IMPACT FLASHING**

- (00) No Flashing
- (01) Continuous Flashing
- (02) -- >Number of Flashes
- (11)
- (12) Constant Light
- (19) Flashing, Unkn Number
- (88) Not Appl (removed)
- (99) Unknown

**AIRBAG VEHICLE  
FIRST HARMFUL EVENT**

3 2

- (01) Fire or explosion
- (02) Immersion
- (03) Gas Inhalation
- (04) Fell from vehicle
- (05) Injured in vehicle
- (06) Other noncollision (specify):
- (07) Overturn
- (08) Jackknife with intraunit damage
- Collision With:
- (09) Pedestrian
- (10) Pedalcyclist
- (11) Railway train
- (12) Animal
- (13) Motor vehicle in transport (same roadway)
- (14) Motor vehicle in transport (other roadway)
- (15) Parked motor vehicle
- (16) Other type nonmotorist (specify):
- (17) Thrown or falling object
- (18) Boulder
- Collision with Fixed Object:
- (20) Building
- (21) Impact attenuator/Crash Cushion
- (22) Bridge pier or abutment
- (23) Bridge parapet end
- (24) Bridge rail
- (25) Guardrail
- (26) Concrete traffic barrier
- (27) Median barrier
- (28) Other longitudinal barrier (specify):
- (29) Highway/Traffic sign post
- (30) Overhead sign support
- (31) Luminaire/Light support
- (32) Utility pole
- (33) Other post, pole, or support (specify):
- (34) Culvert
- (35) Curb
- (36) Ditch
- (37) Embankment-earth
- (38) Embankment-rock, stone or concrete
- (39) Fence (wooden, wire, chain link, etc.)
- (40) Wall (stone, rock, metal, etc.)
- (41) Fire hydrant
- (42) Shrubbery
- (43) Tree
- (44) Other fixed object (specify):
- (45) Pavement surface irregularity (pothole, grooved, grates)
- (99) Unknown

## AIRBAG VEHICLE IMPACT SUMMARY

## VEHICLE ROLE

- (0) Non-collision  
 (1) Striking Unit  
 (2) Struck Unit  
 (3) Both Striking and Struck  
 (9) Unknown

## MANNER OF LEAVING SCENE

- (1) Driven  
 (2) Towed-due to damage  
 (3) Towed - not for damage  
 (4) Towed - details unknown  
 (5) Abandoned  
 (9) Unknown

## NUMBER OF IMPACT EVENTS

- (8) 8 or more, (9) Unknown

## ROLLOVER

- (0) No Rollover  
 (1) First Event  
 (2) Subsequent Event  
 (3) Yes, Unknown Event  
 (9) Unknown

## OVERRIDE/UNDERRIDE

- (1) No over/underride  
 (1) Override - 1st CDC  
 (3) - Other CDC  
 (4) Underride - 1st CDC  
 (6) - Other CDC  
 (9) Unknown

## AIRBAG VEHICLE DAMAGE

- CODES: (1) Yes, DAMAGED  
 (2) No Damage  
 (9) Unknown

## LEFT FRONT FENDER DAMAGE

## RIGHT FRONT FENDER DAMAGE

## CENTER TOP OF GRILLE DAMAGE

## FRONT BUMPER E.A. STATUS: Left

- (1) Normal Right  
 (2) Extended  
 (3) Partial Compression  
 (4) Complete Compression  
 (5) Not Applicable  
 (9) Unknown

## FIRST AIRBAG VEHICLE IMPACT:

## CONFIGURATION

- (0) Struck Object or Pedestrian  
 (1) Rear-End  
 (2) Head-On  
 (3) Rear-to-Rear  
 (4) Angle  
 (5) Sideswipe - Same Direction  
 (6) Sideswipe-Opposite Direct.  
 (7) NonColl:eg Fell from Veh  
 (8) NonImpact Deployment  
 (9) Unknown

CDC 12 - F 2 E N - 1OBJECT CONTACTED: UTILITY POLE

## PRIMARY/DEPLOYMENT IMPACT:

## EVENT NUMBER

TOTAL DELTA-V 12.6 mphLONGITUDINAL DELTA-V -12.6 mph

## CONFIGURATION

- (0) Struck Object or Pedestrian  
 (1) Rear-End  
 (2) Head-On  
 (3) Rear-to-Rear  
 (4) Angle  
 (5) Sideswipe - Same Direction  
 (6) Sideswipe-Opposite Direct.  
 (7) NonColl:eg Fell from Veh  
 (8) NonImpact Deployment  
 (9) Unknown

CDC 12 - F 2 E N - 1OBJECT CONTACTED: UTILITY POLE

## NOTES:



## SYSTEM DAMAGE

AIRBAG SUPPLEMENT

AB-4

## AIRBAG SYSTEM DAMAGE

CODES: (1) Yes, Damaged\*  
 (2) No, Intact  
 (8) Not App. (Removed)  
 (9) Unknown

## AIRBAG MODULE

SENSORS: Left Front

Center Front

Right Front

Rear, Cowl

## DIAGNOSTIC MODULE

## WIRING

## KNEE DIVERter

INDICATION OF DISCONNECTED  
 OR LOOSE ELECTRICAL  
 CONNECTORS

## CONDITION OF DEPLOYED BAG

(1) Bag Intact  
 (2) Split or Torn\*  
 (3) Cut by Object in Impact\*  
 (4) Cut after Accident\*  
 (5) Other (e.g., burned)\*  
 (8) N/A (not deployed)  
 (9) Unknown

8228222222

\*DESCRIBE System and Bag Damage:

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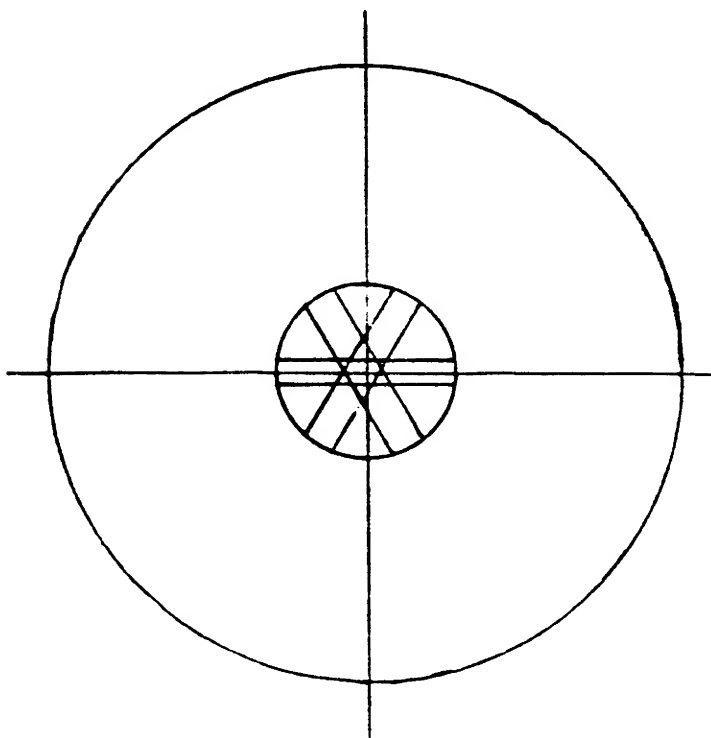


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NOTE DAMAGE AND CONTACT MARKS ON AIRBAG DIAGRAMS BELOW:

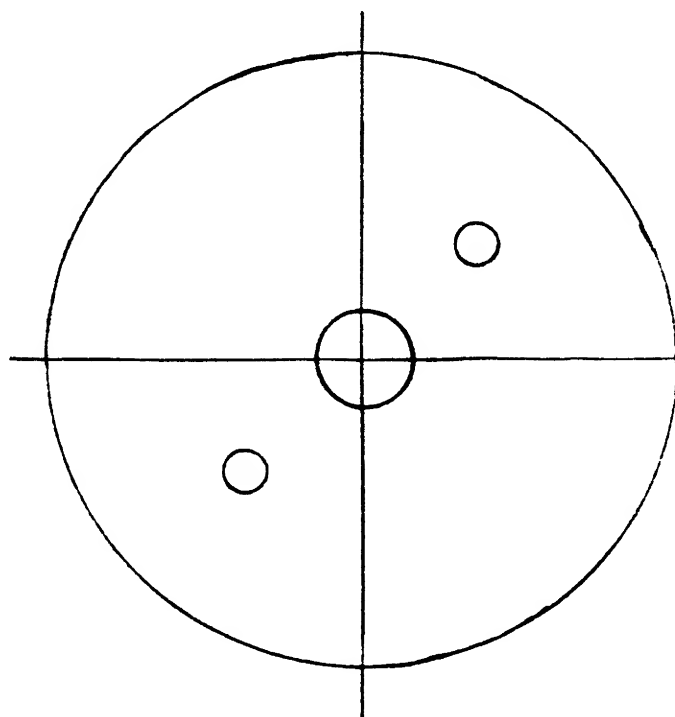
NON-DEPLOYMENT

TOP



FRONT

BOTTOM



BACK

## OCCUPANTS/DRIVER

AIRBAG SUPPLEMENT AB-5

## OCCUPANTS of AIRBAG CAR

NUMBER OF OCCUPANTS IN VEHICLE  
(8) 8 or more  
NUMBER OF INJURED PERSONS  
MAXIMUM AIS IN AIRBAG VEHICLE  
(0) No Injury  
(1-6) AIS Severity  
(7) Injured, Unknown Severity  
(9) Unknown

1  
1  
1

## NOTES:

DRIVER AGE 50 SEX MALE

NUMBER OF DRIVER INJURIES

2

SOURCE OF BEST INJURY DATA

3

- (0) Not Injured  
(1) Autopsy w/wo med. records  
(2) Hospital Medical Records  
(3) Emergency Room only  
(4) Private physician, Clinic  
(5) Lay Coroner Report  
(6) EMS Personnel  
(7) Interviewee  
(8) Police  
(9) Unknown

## MAXIMUM AIS BY BODY REGION

REGION	MAX AIS	CONTACT
Head/Neck/Face	—	— —
Chest	<u>1</u>	— —
Abdomen	—	— —
Leg/Hips	—	— —
Other (Arms)	<u>1</u>	— —
DRIVER MAXIMUM	—	— —

EJECTION: Extent NONEPortal N/A

## DRIVER-PASSENGER

## AIRBAG SUPPLEMENT AB-6

**DRIVER BELT USAGE:** (1) Used (2) Not Used (9) Unknown 2

Evidence: \_\_\_\_\_

**DRIVER POSTURE:** Any Comments Recorded (1) Yes, (2) No 1

Describe driver's posture and position on seat including specific comments on head, torso, buttocks, legs and feet. Also note hand and arm position. Did driver brace before crash? Describe:

**DRIVER FOREIGN OBJECTS:** Comments Recorded (1) Yes, (2) No 1

Was driver wearing contact lenses or eyeglasses? Or holding any foreign object at the time of the impact (packages on lap, pipe, food, bottle, cigarette, etc.)? Did any lenses, objects, or jewelry play any role?:

PEN IN SHIRT POCKET, BADGE OVER LEFT POCKET

**DRIVER COMMENTS:** Comments Recorded (1) Yes, (2) No 1

Was the driver aware that the vehicle was equipped with a supplemental restraint system? Did driver offer any comments on smoke, noise, etc.? Did the driver comment on the airbag as a restraint system? Describe:

DRIVER WAS AWARE, NO DEPLOYMENT

**PASSENGER-AIRBAG CONTACT** (1) Yes, (2) No, (9) Unknown 8

Describe: NO PASSENGER

APPENDIX C

CRASHPC Output  
(Damage and Trajectory Algorithm)

METRIC VERSION

## SUMMARY OF CRASHED RESULTS USING DAMAGE

72-20

	SPEED CHANGE (DAMAGE)	IMPACT SPEED (DAMAGE AND SPINOUT)
VEHICLE #1		
TOTAL	21 KPH ( 13 MPH)	23 KPH ( 14 MPH)
LONGITUDINAL	-21 KPH ( -13 MPH)	23 KPH ( 14 MPH)
LATITUDINAL	0 KPH ( 0 MPH)	0 KPH ( 0 MPH)
PDOF ANGLE	0 DEGREES	
ENERGY DISSIPATED =	33609 JOULES ( 24786 FT-LB)	
VEHICLE #2		
TOTAL	0 KPH ( 0 MPH)	0 KPH ( 0 MPH)
LONGITUDINAL	0 KPH ( 0 MPH)	0 KPH ( 0 MPH)
LATITUDINAL	0 KPH ( 0 MPH)	0 KPH ( 0 MPH)
PDOF ANGLE	0 DEGREES	
ENERGY DISSIPATED =	0 JOULES ( 0 FT-LB)	

## SCENE INFORMATION

	VEHICLE #1	VEHICLE #2
IMPACT X-POSITION	-2.5 M. ( -8.3 FT.)	1.3 M. ( 4.3 FT.)
IMPACT Y-POSITION	-1.4 M. ( -1.3 FT.)	1.0 M. ( 3.3 FT.)
IMPACT HEADING ANGLE	0 DEGREES	180 DEGREES
REST X-POSITION	-2.5 M. ( -8.3 FT.)	1.3 M. ( 4.3 FT.)
REST Y-POSITION	-1.4 M. ( -1.3 FT.)	1.0 M. ( 3.3 FT.)
REST HEADING ANGLE	0 DEGREES	180 DEGREES
WHEEL CLIP ANGLE	0 DEGREES	0 DEGREES
DIRECTION OF ROTATION	NONE	NONE
AMOUNT OF ROTATION	0360	0360

## COLLISION AND SEPARATION

	VEHICLE #1	VEHICLE #2
COLLISION		
IMPACT X-POSITION	-2.5 M. ( -8.3 FT.)	1.3 M. ( 4.3 FT.)
IMPACT Y-POSITION	-1.4 M. ( -4.6 FT.)	1.0 M. ( 3.3 FT.)
IMPACT HEADING ANGLE	0 DEGREES	180 DEGREES
SEPARATION (USING SPINDOUT)		
US	3 KPH ( 2 MPH)	0 KPH ( 0 MPH)
VS	0 KPH ( 0 MPH)	0 KPH ( 0 MPH)
PSID	0 DEG/SEC	0 DEG/SEC

## DAMAGE DATA

	VEHICLE #1	VEHICLE #2
SIZE CATEGORY	4	11
STIFFNESS CATEGORY	0	0
VEHICLE WEIGHT	1940 KGS ( 4277 LBS)	453600 KGS (1000000 LBS)
GDC	12FYEM	UNPRTED
PDOP ANGLE	0 DEGREES	0 DEGREES
CRUSH LENGTH	168 CM. ( 66 IN.)	0 CM. ( 0 IN.)
C1	2 CM. ( 1 IN.)	0 CM. ( 0 IN.)
C2	4 CM. ( 2 IN.)	0 CM. ( 0 IN.)
C3	12 CM. ( 5 IN.)	0 CM. ( 0 IN.)
C4	20 CM. ( 8 IN.)	0 CM. ( 0 IN.)
C5	26 CM. ( 10 IN.)	0 CM. ( 0 IN.)
C6	5 CM. ( 2 IN.)	0 CM. ( 0 IN.)
C7	18 CM. ( 7 IN.)	0 CM. ( 0 IN.)
C8	57 CM. ( 22 IN.)	0 CM. ( 0 IN.)

00 INDICATES DAMAGE NOT

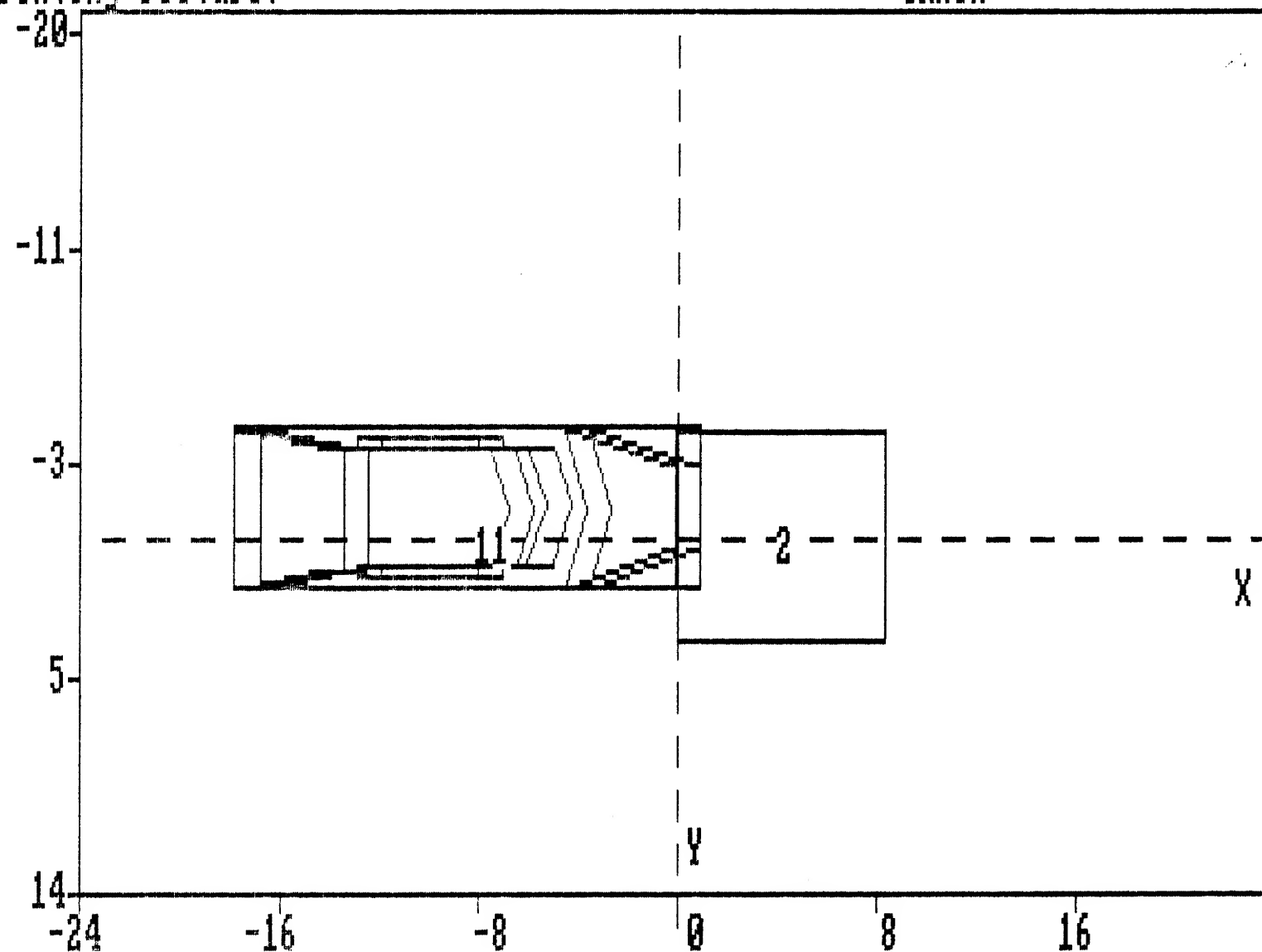
# DIMENSIONS AND INERTIAL PROPERTIES

	VEHICLE #1	VEHICLE #2
CG TO FRONT AXLE	139 CM. ( 55 IN.)	127 CM. ( 50 IN.)
CG TO REAR AXLE	150 CM. ( 59 IN.)	127 CM. ( 50 IN.)
TRACK	157 CM. ( 62 IN.)	127 CM. ( 50 IN.)
CG TO FRONT OF VEH	251 CM. ( 99 IN.)	127 CM. ( 50 IN.)
CG TO REAR OF VEH	-290 CM. (-114 IN.)	-127 CM. (-50 IN.)
CG TO SIDE OF VEH	98 CM. ( 39 IN.)	127 CM. ( 50 IN.)
MOMENT OF INERTIA	18871 KGS ( 41602 LBS)	***** KGS (***** LBS)
VEHICLE MASS	5 KGS ( 11 LBS)	1179 KGS ( 2600 LBS)
ROLLING RESISTANCE		
LEFT FRONT WHEEL	.02	.00
RIGHT FRONT WHEEL	.02	.00
LEFT REAR WHEEL	.00	.00
RIGHT REAR WHEEL	.20	.00

COEFFICIENT OF FRICTION = .70

Printing Picture:

CRASH

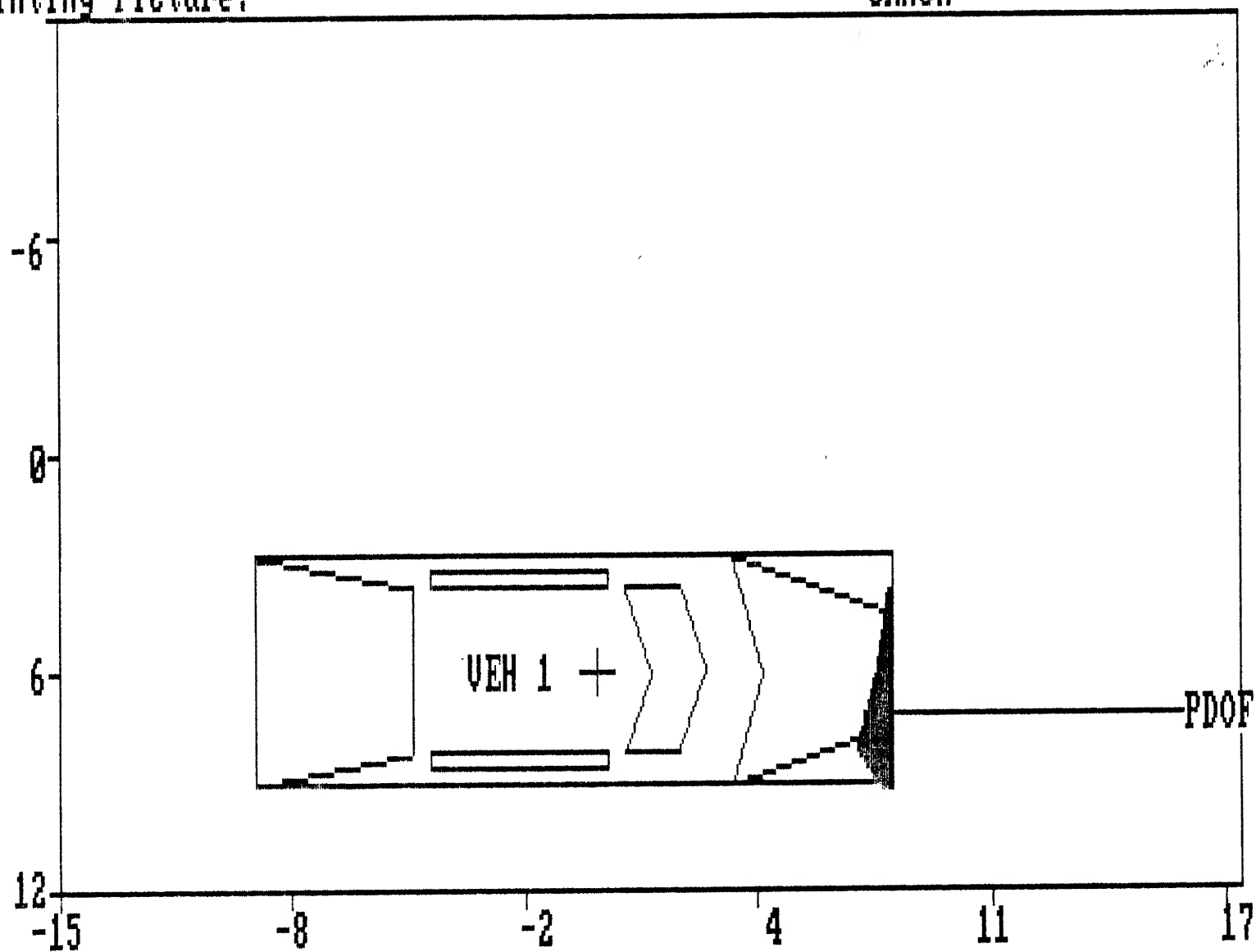


SCENE DESCRIPTION



Printing Picture:

CRASH



DAMAGE DESCRIPTION

**APPENDIX D**

**NASS OCCUPANT FORMS**



## GENERAL VEHICLE FORM

1. ~~Primary Sampling Unit Number~~ \_\_\_\_\_2. Case Number - Stratum 92-203. Vehicle Number 01

## VEHICLE IDENTIFICATION

4. Vehicle Model Year 92  
Code the last two digits of the model year  
(99) Unknown5. Vehicle Make (specify): 20CHEVROLETApplicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(99) Unknown6. Vehicle Model (specify): 002CAPRICEApplicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(999) Unknown7. Body Type 04Note: Applicable codes may be found on  
the back of this page.

8. Vehicle Identification Number

1G1BL537XNW-----Left justify; Slash zeros and letter Z (0 and Z)  
No VIN—Code all zeros  
Unknown—Code all nine's

## OFFICIAL RECORDS

9. Police Reported Vehicle Disposition 1  
(0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown10. Police Reported Travel Speed 99Code to the nearest mph (NOTE: 00 means  
less than 0.5 mph)  
(97) 96.5 mph and above  
(99) Unknown11. Police Reported Alcohol Presence 0

- (0) No alcohol present  
(1) Yes (alcohol present)  
(7) Not reported  
(8) No driver present  
(9) Unknown

Note: See variables 37 through 55  
(Page 4) for information on Other Drugs12. Alcohol Test Result For Driver 96  
Code actual value (decimal implied  
before first digit—0.xx)  
(95) Test refused  
(96) None given  
(97) AC test performed, results unknown  
(98) No driver present  
(99) Unknown

Source: \_\_\_\_\_

## ACCIDENT RELATED

13. Speed Limit 25  
(00) No statutory limit  
Code posted or statutory speed limit  
(99) Unknown14. Attempted Avoidance Maneuver 02  
(00) No impact  
(01) No avoidance actions  
(02) Braking (no lockup)  
(03) Braking (lockup)  
(04) Braking (lockup unknown)  
(05) Releasing brakes  
(06) Steering left  
(07) Steering right  
(08) Braking and steering left  
(09) Braking and steering right  
(10) Accelerating  
(11) Accelerating and steering left  
(12) Accelerating and steering right  
(97) No driver present  
(98) Other action (specify):  
(99) Unknown15. Accident Type 01  
Applicable codes may be found on the  
back of page two of this field form  
(00) No impact  
Code the number of the diagram that  
best describes the accident circumstance  
(98) Other accident type (specify):  
(99) Unknown

\*\*\*\* SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49 \*\*\*\*

# CODES FOR BODY TYPE

## CDS APPLICABLE VEHICLES

### Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): \_\_\_\_\_

- (09) Unknown automobile type

### Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

### Utility Vehicles ( $\leq 10,000$ lbs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravado, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Landcruiser, Rover, Scout)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

### Van Based Light Trucks ( $\leq 10,000$ lbs GVWR)

- (20) Minivan (Chrysler Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Dodge/Plymouth Vista, Aerostar, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Mitsubishi Minivan, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ( $\leq 10,000$  lbs GVWR)
- (23) Van based motorhome ( $\leq 10,000$  lbs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): \_\_\_\_\_

- (29) Unknown van type

### Light Conventional Trucks (Pickup style cab, $\leq 10,000$ lbs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500.)
- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

### Other Light Trucks ( $\leq 10,000$ lbs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

## OTHER VEHICLES

### Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): \_\_\_\_\_
- (59) Unknown bus type

### Medium/Heavy Trucks ( $> 10,000$ lbs GVWR)

- (60) Step van ( $> 10,000$  lbs GVWR)
- (61) Single unit straight truck ( $10,000$  lbs  $<$  GVWR  $\leq 19,500$  lbs)
- (62) Single unit straight truck ( $19,500$  lbs  $<$  GVWR  $\leq 26,000$  lbs)
- (63) Single unit straight truck ( $> 26,000$  lbs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

### Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): \_\_\_\_\_
- (89) Unknown motored cycle type

### Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

**OCCUPANT RELATED**

16. Driver Presence in Vehicle

- (0) Driver not present  
(1) Driver present  
(9) Unknown

1

17. Number of Occupants This Vehicle

(00-96) Code actual number of occupants for this vehicle

- (97) 97 or more  
(99) Unknown

01

18. Number of Occupant Forms Submitted

01**VEHICLE WEIGHT ITEMS**

19. Vehicle Curb Weight

3907 Code weight to nearest  
100 pounds.

- (010) Less than 1050 pounds  
(135) 13,500 pounds or more  
(999) Unknown

03,900

Source: \_\_\_\_\_

20. Vehicle Cargo Weight

200 Code weight to nearest  
100 pounds.

- (00) Less than 50 pounds  
(97) 9,650 pounds or more  
(99) Unknown

0,200

POLICE EQUIPMENT  
+ "PASSENGER CAGE"

**RECONSTRUCTION DATA**

21. Towed Trailing Unit

- (0) No towed unit  
(1) Yes—towed trailing unit  
(9) Unknown

0

22. Documentation of Trajectory Data for This Vehicle

- (0) No  
(1) Yes

0

23. Post Collision Condition of Tree or Pole (For Highest Delta V)

- (0) Not collision (for highest delta V) with tree or pole  
(1) Not damaged  
(2) Cracked/sheared  
(3) Tilted <45 degrees  
(4) Tilted ≥45 degrees  
(5) Uprooted tree  
(6) Separated pole from base  
(7) Pole replaced  
(8) Other (specify): \_\_\_\_\_

1

(9) Unknown

24. Rollover

- (0) No rollover (no overturning)

0*Rollover (primarily about the longitudinal axis)*

- (1) Rollover, 1 quarter turn only  
(2) Rollover, 2 quarter turns  
(3) Rollover, 3 quarter turns  
(4) Rollover, 4 or more quarter turns (specify): \_\_\_\_\_

- (5) Rollover--end-over-end (i.e., primarily about the lateral axis)  
(9) Rollover (overturn), details unknown

**OVERRIDE/UNDERRIDE (THIS VEHICLE)**

25. Front Override/Underride (this Vehicle)

0

26. Rear Override/Underride (this Vehicle)

0

- (0) No override/underride, or not an end-to-end impact

*Override (see specific CDC)*

- (1) 1st CDC  
(2) 2nd CDC  
(3) Other not automated CDC (specify): \_\_\_\_\_

*Underride (see specific CDC)*

- (4) 1st CDC  
(5) 2nd CDC  
(6) Other not automated CDC (specify): \_\_\_\_\_

- (7) Medium/heavy truck or bus override  
(9) Unknown

**HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V**

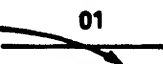

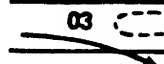
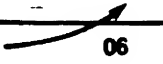

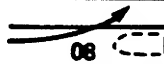
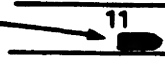

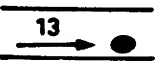
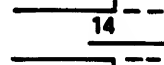

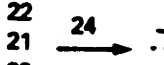
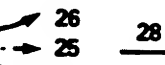
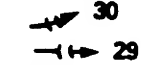


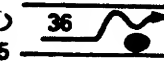
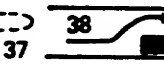
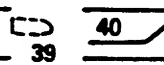
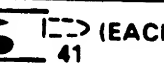

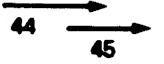
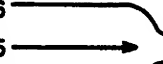

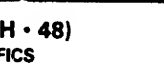
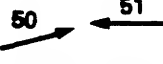


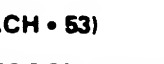


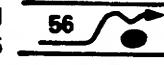

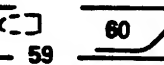
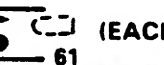




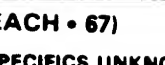


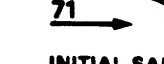
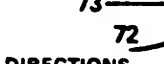


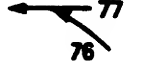
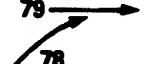




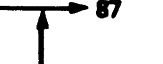
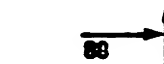

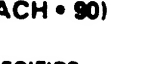

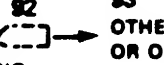




Values: (000)-(359) Code actual value  
(997) Noncollision  
(998) Impact with object  
(999) Unknown

27. Heading Angle For This Vehicle

998

28. Heading Angle For Other Vehicle

998

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I. Single Driver	A. Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B. Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C. Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER 16 SPECIFICS UNKNOWN
II. Same Trafficway Same Direction	D. Rear-End	 20 STOPPED 21, 22, 23	 22 SLOWER 25, 26, 27	 24 DECEL. 28, 30, 31	 26 SPECIFICS OTHER	 28 SPECIFICS UNKNOWN
	E. Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 40 AVOID COLLISION WITH OBJECT	 42 SPECIFICS OTHER  43 SPECIFICS UNKNOWN
	F. Sideswipe Angle	 44 SPECIFICS OTHER	 45 SPECIFICS UNKNOWN	 46 SPECIFICS OTHER	 47 SPECIFICS UNKNOWN	(EACH • 48) SPECIFICS OTHER (EACH • 49) SPECIFICS UNKNOWN
III. Same Trafficway Opposite Direction	G. Head-On	 50 LATERAL MOVE	 51 SPECIFICS OTHER	 52 SPECIFICS UNKNOWN	 53 SPECIFICS OTHER	 54 SPECIFICS UNKNOWN
	H. Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 60 AVOID COLLISION WITH OBJECT	 62 SPECIFICS OTHER  63 SPECIFICS UNKNOWN
	I. Sideswipe Angle	 64 LATERAL MOVE	 65 SPECIFICS OTHER	 66 SPECIFICS UNKNOWN	 67 SPECIFICS OTHER	 68 SPECIFICS UNKNOWN
IV. Change Trafficway Vehicle Turning	J. Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 70 INITIAL SAME DIRECTIONS	 72 SPECIFICS OTHER	 74 SPECIFICS UNKNOWN	 75 SPECIFICS OTHER
	K. Turn Into Path	 76 TURN INTO SAME DIRECTION	 78 TURN INTO OPPOSITE DIRECTIONS	 80 SPECIFICS OTHER	 82 SPECIFICS UNKNOWN	 84 SPECIFICS OTHER  85 SPECIFICS UNKNOWN
V. Intersecting Paths (Vehicle Damage)	L. Straight Paths	 86 SPECIFICS OTHER	 88 SPECIFICS UNKNOWN	 90 SPECIFICS OTHER	 91 SPECIFICS UNKNOWN	 92 SPECIFICS OTHER
VI. Miscellaneous	M. Backing Etc.	 92 BACKING VEH.	 93 OTHER VEH. OR OBJECT	 98 Other Accident Type	 99 Unknown Accident Type	 00 No Impact

29. Basis for Total Delta V (highest) 2*Delta V Calculated*

- (1) CRASH program—damage only routine
- (2) CRASH program—damage and trajectory routine
- (3) Missing vehicle algorithm

*Delta V Not Calculated*

- (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
- (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction technique, regardless of adequacy of damage data.
- (6) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

**COMPUTER GENERATED DELTA V**

30. Total Delta V

Secondary Highest

13 Nearest mph

(NOTE: 00 means less than  
0.5 mph)  
(97) 96.5 mph and above  
(99) Unknown

31. Longitudinal Component of  
Delta V-13 Nearest mph

(NOTE: 00 means greater than  
-0.5 and less than +0.5 mph)  
(±97) ±96.5 mph and above  
(99) Unknown

32. Lateral Component of Delta V

Secondary Highest

+0.0 Nearest mph

(NOTE: 00 means greater than  
-0.5 and less than +0.5 mph)  
(±97) ±96.5 mph and above  
(99) Unknown

33. Energy Absorption

024,80024786 Nearest 100 foot-lbs

(NOTE: 0000 means less than 50 foot-lbs)  
(9997) 999,650 foot-lbs or more  
(9999) Unknown

34. Confidence In Reconstruction Program  
Results (For Highest Delta V)

- (0) No reconstruction
- (1) Collision fits model — results appear reasonable
- (2) Collision fits model — results appear high
- (3) Collision fits model — results appear low
- (4) Borderline reconstruction — results appear reasonable

35. Type of Vehicle Inspection

- (0) No inspection
- (1) Complete inspection
- (2) Partial inspection (specify):

36. Is this an AOPS Vehicle?

- (0) No
- (1) Yes

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [ ] YES [✓] NO

IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO

37. Police Reported Other Drug Presence 0

- (0) No other drugs present
- (1) Yes (other drug present)
- (7) Not reported
- (8) No driver present
- (9) Unknown

38. Police Reported Observation/Perception Test Type For Driver 0

- (0) No observation/perception test given
- (1) Drug recognition technician (DRT) determination using DEC process
- (2) Behavioral
- (3) Other physical observation/perception determination (specify): \_\_\_\_\_
- (4) DEC process available, unknown if determination made
- (5) DEC process not available, unknown if other observation/perception test given
- (7) Other observation/perception test (specify): \_\_\_\_\_
- (8) No driver present

39. Other Drug Specimen Test Type For Driver 0

- (0) No specimen test given
- (1) Blood test
- (2) Urine test
- (3) Other specimen tests (specify): \_\_\_\_\_
- (7) Unspecified specimen test
- (8) No driver present
- (9) Unknown if specimen test given

## DRUG EVALUATION CLASSIFICATION

### OTHER DRUGS TEST RESULTS FOR DRIVER

	DEC	
	Observation/ Perception Test Results	Specimen Test Results
Narcotic Drug	40. <u>0</u>	41. <u>0</u>
Depressant Drug	42. <u>0</u>	43. <u>0</u>
Stimulant Drug	44. <u>0</u>	45. <u>0</u>
Hallucinogen Drug	46. <u>0</u>	47. <u>0</u>
Cannabinoid Drug	48. <u>0</u>	49. <u>0</u>
Phencyclidine (PCP)	50. <u>0</u>	51. <u>0</u>
Inhalant Drug	52. <u>0</u>	53. <u>0</u>
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. <u>0</u>	55. <u>0</u>

## Codes For Observation/Perception Test Results

- (0) No DEC observation/perception test given
- (1) Passed DEC observation/perception test
- (2) Failed DEC observation/perception test
- (3) DEC observation/perception test given—  
results unknown
- (8) No driver present
- (9) Unknown if DEC observation/perception  
test given

## Codes for Specimen Test Results

- (0) No specimen test given
- (1) Drug not found in specimen
- (2) Drug found in specimen
- (7) Specimen test given, results unknown or  
not obtained
- (8) No driver present
- (9) Unknown if specimen test given



**OTHER DATA**

56. Driver's Zip Code

9 9 9 9 9

- (00000) Driver not present  
 (00001) Driver not a resident of U.S. or territories  
 Code actual 5-digit zip code  
 (99999) Unknown

57. Driver's Race/Ethnic Origin

- (0) Driver not present  
 (1) White (non-Hispanic)  
 (2) Black (non-Hispanic)  
 (3) White (Hispanic)  
 (4) Black (Hispanic)  
 (5) American Indian, Eskimo or Aleut  
 (6) Asian or Pacific Islander  
 (8) Other (specify):

1

(9) Unknown

58. Vehicle Special Use (This Trip)

- (0) No special use  
 (1) Taxi  
 (2) Vehicle used as school bus  
 (3) Vehicle used as other bus  
 (4) Military  
 (5) Police  
 (6) Ambulance  
 (7) Hearse  
 (8) Fire truck or car  
 (9) Unknown

5**ROLLOVER DATA**

If GV07 (Body Type)  $\neq$  1-49, leave GV59-GV63 blank.  
 If GV24 (Rollover) = 0, then GV59-GV63 must equal 0.  
 If GV24 = 9, then GV59-GV63 must equal 9.

59. Rollover Initiation Type

- (0) No rollover  
 (1) Trip-over  
 (2) Flip-over  
 (3) Turn-over  
 (4) Climb-over  
 (5) Fall-over  
 (6) Bounce-over  
 (7) Collision with another vehicle  
 (8) Other rollover initiation type specify):

0

(9) Unknown rollover initiation type

60. Location of Rollover Initiation

- (0) No rollover  
 (1) On roadway  
 (2) On shoulder—paved  
 (3) On shoulder—unpaved  
 (4) On roadside or divided trafficway median  
 (9) Unknown

0

61. Rollover Initiation Object Contacted

0 0

62. Location on Vehicle Where Initial Principal Tripping Force Is Applied

0

- (0) No rollover  
 (1) Wheels/tires  
 (2) Side plane  
 (3) End plane  
 (4) Undercarriage  
 (5) Other location on vehicle (specify):

(8) Non-contact rollover forces (specify):

(9) Unknown

63. Direction of Initial Roll

0

- (0) No rollover  
 (1) Roll right - primarily about the longitudinal axis  
 (2) Roll left - primarily about the longitudinal axis  
 (5) End-over-end (i.e., primarily about the lateral axis)  
 (9) Unknown roll direction

**PRECRASH DATA**

64. Pre-Event Movement (Prior to Recognition of Critical Event)

09

- (01) Going straight  
 (02) Slowing or stopping in traffic lane  
 (03) Starting in traffic lane  
 (04) Stopped in traffic lane  
 (05) Passing or overtaking another vehicle  
 (06) Disabled or parked in travel lane  
 (07) Leaving a parking position  
 (08) Entering a parking position  
 (09) Turning right  
 (10) Turning left  
 (11) Making a U-turn  
 (12) Backing up (other than for parking position)  
 (13) Negotiating a curve  
 (14) Changing lanes  
 (15) Merging  
 (16) Successful avoidance maneuver to a previous critical event  
 (97) Other (specify):

- (98) No driver present  
 (99) Unknown

## CODES FOR ROLLOVER INITIATION OBJECT CONTACTED

- (00) No rollover
- (01-30) — Vehicle Number

### Noncollision

- (31) Turn-over — fall-over
- (33) Jackknife

### Collision With Fixed Object

- (41) Tree ( $\leq 4$  inches in diameter)
- (42) Tree ( $> 4$  inches in diameter)
- (43) Shrubbery or bush
- (44) Embankment

- (45) Breakaway pole or post (any diameter)

### Nonbreakaway Pole or Post

- (50) Pole or post ( $\leq 4$  inches in diameter)
- (51) Pole or post ( $> 4$  inches but  $\leq 12$  inches in diameter)
- (52) Pole or post ( $> 12$  inches in diameter)
- (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail)  
(specify): \_\_\_\_\_

- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): \_\_\_\_\_

- (69) Unknown fixed object \_\_\_\_\_

### Collision with Nonfixed Object

- (71) Motor vehicle not in-transport
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (88) Other nonfixed object (specify): \_\_\_\_\_

- (89) Unknown nonfixed object \_\_\_\_\_

- (98) Other event (specify): \_\_\_\_\_

- (99) Unknown event or object \_\_\_\_\_

## PRECRASH DATA (Continued)

65. Critical-Precrash Event 13*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): \_\_\_\_\_
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): \_\_\_\_\_
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): \_\_\_\_\_
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): \_\_\_\_\_
- (09) Unknown cause of control loss

*This Vehicle Traveling*

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (19) Unknown travel direction

*Other Motor Vehicle In Lane*

- (50) Stopped
- (51) Traveling in same direction with lower speed (i.e., lower steady speed or decelerating)
- (52) Traveling in same direction with higher speed
- (53) Traveling in opposite direction
- (54) In crossover
- (55) Backing
- (59) Unknown travel direction of other motor vehicle in lane

*Other Motor Vehicle Encroaching Into Lane*

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

*Pedestrian or Pedalcyclist, or Other Nonmotorist*

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian - unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): \_\_\_\_\_
- (84) Pedalcyclist or other nonmotorist approaching roadway (specify): \_\_\_\_\_
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): \_\_\_\_\_

*Object or Animal*

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location

(98) Other critical precrash event (specify): \_\_\_\_\_

(99) Unknown \_\_\_\_\_

For Corrective Actions Attempted see variable GV14 (Attempted Avoidance Maneuver)

66. Precrash Stability After Avoidance Maneuver 1

- (0) No avoidance maneuver
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): \_\_\_\_\_
- (8) No driver present
- (9) Precrash stability unknown

67. Precrash Directional Consequences of Avoidance Maneuver (Corrective Action) 5

- (0) No avoidance maneuver
- (1) Vehicle stayed in travel lane where avoidance maneuver was initiated
- (2) Vehicle stayed on roadway but left travel lane where avoidance maneuver was initiated
- (3) Vehicle stayed on roadway, not known if left travel lane where avoidance maneuver was initiated
- (4) Vehicle departed roadway
- (5) Avoidance maneuver initiated off roadway
- (8) No driver present
- (9) Directional consequences unknown

\*\*\* IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35=0), \*\*\*  
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\*  
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,  
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

## EXTERIOR VEHICLE FORM

**NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM**

1. <del>Primary Sampling Unit Number</del> _____ 2. Case Number - <del>Stratum</del> <u>92-20</u>	3. Vehicle Number <u>01</u>
--	-----------------------------

## VEHICLE IDENTIFICATION

VIN 1G1BL537XNW----- Model Year 92  
Vehicle Make (specify): CHEVROLET Vehicle Model (specify): CAPRICE

## LOCATOR

**Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.**

Specific Impact No.	Location of Direct Damage	Location of Field L
1	ON FRONT BUMPER FACIA, STARTS	FULL BUMPER WIDTH, 164.5 CM
	23.9 CM (R) OF CENTER, EXTENDS	(CORNER TO CORNER)
	31.8 CM TO RIGHT	

## CRUSH PROFILE

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

**Measure and document on the vehicle diagram the location of maximum crush.**

**Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.**

**Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.**

Use as many lines/columns as necessary to describe each damage profile. **ALL MEASUREMENTS RECORDED IN INCHES**

[illegible]

## VEHICLE DAMAGE SKETCH

## TIRE—WHEEL DAMAGE

a. Rotation physically restricted b. Tire deflated

RF 2RF 2LF 2LF 2RR 2RR 2LR 2LR 2

(1) Yes (2) No (8) NA (9) Unk.

## ORIGINAL SPECIFICATIONS

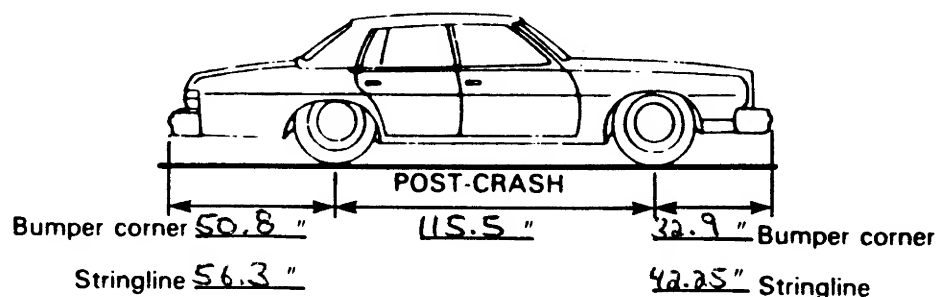
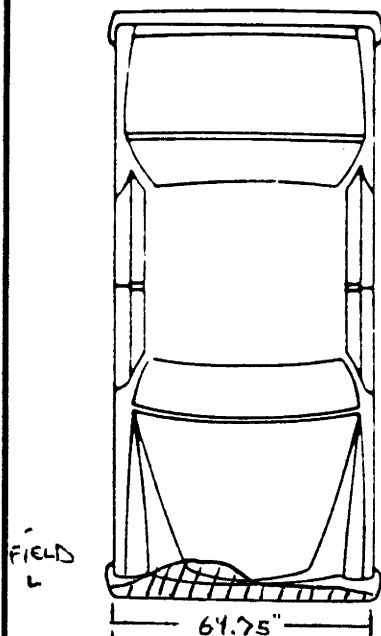
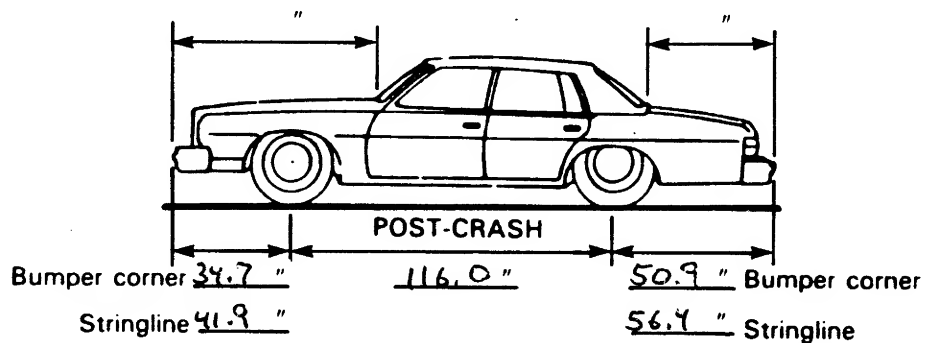
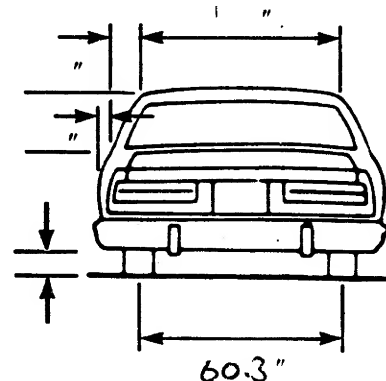
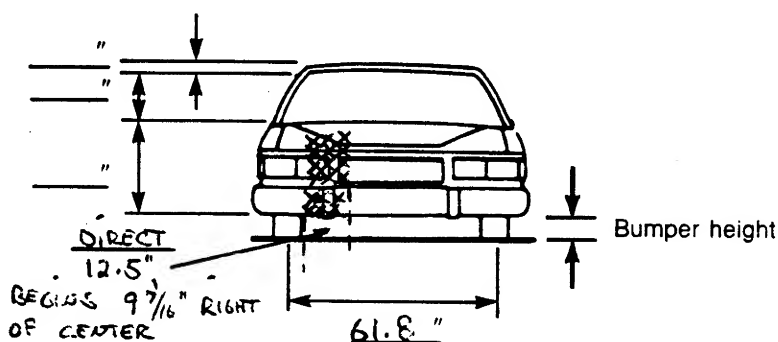
Wheelbase 115.9"Overall Length 214.1"Maximum Width 72.0"Curb Weight 3907 lbs.Average Track 61.05"Front Overhang           Rear Overhang           Engine Size: cyl./ displ. 2 cyl. 5.7 literUndeformed End Width           WHEEL STEER ANGLES  
(For locked front wheels or  
displaced rear axles only)RF ±       °LF ±       °RR ±       °LR ±       °

Within ±5 degrees

## DRIVE WHEELS

☐ FWD ☒ RWD ☐ 4WD

## TYPE OF TRANSMISSION

☐ Manual ☒ AutomaticApproximate  
Cargo Weight 200 lbs

NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewall, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

**(57) Fence**

**(58) Wall**

- (59) Building**

- (60) Ditch or culvert

- (61) Ground**

- (62) Fire hydrant**

- (63) Curb**

- (64) Bridge**

- (68) Other fixed object (specify):**

### Collision with Nonfixed Object

- (71) Motor vehicle not in-transport**

- (72) Pedestrian**

- (73) Cyclist or cycle**

- (74) Other nonmotorist or conveyance**

- (75) Vehicle occupant**

- (76) Animal**

- (77) Train**

(78) Trailer, disconnected in transport

- (88) Other nonfixed object (specify):

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Journal compilation © 2006 Blackwell Publishing Ltd

- (89) Unknown nonfixed object**

- (98) Other event (specify):

- (99) Unknown event or object

**COLLISION DEFORMATION CLASSIFICATION****HIGHEST DELTA "V"**

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>01</u>	5. <u>51</u>	6. <u>12</u>	7. <u>F</u>	8. <u>Z</u>	9. <u>E</u>	10. <u>N</u>	11. <u>01</u>

**Second Highest Delta "V"**

12. _____	13. _____	14. _____	15. _____	16. _____	17. _____	18. _____	19. _____
-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

**CRUSH PROFILE**

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN INCHES.)

**HIGHEST DELTA "V"**

20. <u>L</u>	21. <u>C<sub>1</sub></u>	<u>C<sub>2</sub></u>	<u>C<sub>3</sub></u>	<u>C<sub>4</sub></u>	<u>C<sub>5</sub></u>	<u>C<sub>6</sub></u>	22. <u>±D</u>
<u>065</u>	<u>01</u>	<u>02</u>	<u>05</u>	<u>08</u>	<u>08</u>	<u>03</u>	<u>⊕</u> <u>- 016</u>

**Second Highest Delta "V"**

23. <u>L</u>	24. <u>C<sub>1</sub></u>	<u>C<sub>2</sub></u>	<u>C<sub>3</sub></u>	<u>C<sub>4</sub></u>	<u>C<sub>5</sub></u>	<u>C<sub>6</sub></u>	25. <u>±D</u>
_____	_____	_____	_____	_____	_____	_____	<u>+</u> <u>-</u>

26. Are CDCs Documented but Not Coded on The Automated File? 0  
(0) No  
(1) Yes

27. Researcher's Assessment of Vehicle Disposition 1  
(0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown

28. Original Wheelbase 115.9 Code to the nearest tenth of an inch  
(9999) Unknown

<p>29. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? <u>0</u></p> <p>(0) No post manufacturer modifications (1) Yes - post manufacturer modifications (specify): _____</p> <p>_____ (Include photograph of CERTIFICATION PLACARD in case report)</p> <p>(9) Unknown if vehicle is modified</p>	<p>31. Origin of Fire <u>0</u></p> <p>(0) No fire (1) Vehicle exterior (front, side, back, top) (2) Exhaust system (3) Fuel tank (and other fuel retention system parts) (4) Engine compartment (5) Cargo/trunk compartment (6) Instrument panel (7) Passenger compartment area (8) Other location (specify): _____</p> <p>(9) Unknown</p>
<p>30. Fire Occurrence <u>0</u></p> <p>(0) No fire</p> <p>Yes, fire occurred (1) Minor (2) Major (9) Unknown</p>	<p>32. Type of Fuel Tank <u>2</u></p> <p>(0) No fuel tank (electrical vehicle) (1) Metallic (2) Non-metallic (9) Unknown</p>

\*\*\* STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED AND WAS NOT AN AOPS \*\*\*  
(I.E., GV09 = 0 OR 9 AND GV36 = 0), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.





# INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number       

2. Case Number - Stratum 92-20

3. Vehicle Number 01

## INTEGRITY

4. Passenger Compartment Integrity 00

(00) No integrity loss

Yes, Integrity Was Lost Through

- (01) Windshield
- (02) Door (side)
- (03) Door/hatch (back door)
- (04) Roof
- (05) Roof glass
- (06) Side window
- (07) Rear window (backlight)
- (08) Roof and roof glass
- (09) Windshield and door (side)
- (10) Windshield and roof
- (11) Side and rear window (side window and backlight)
- (12) Windshield and side window
- (13) Door and side window
- (98) Other combination of above (specify):

(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 1 8. RR 1 9. TG/H 0

- (0) No door/gate/hatch
- (1) Door/gate/hatch remained closed and operational
- (2) Door/gate/hatch came open during collision
- (3) Door/gate/hatch jammed shut
- (8) Other (specify):

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09  $\neq$  2, Then code 0

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

- (1) Door operational (no damage)
- (2) Latch/striker failure due to damage
- (3) Hinge failure due to damage
- (4) Door structure failure due to damage
- (5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
- (6) Latch/striker and hinge failure due to damage
- (8) Other failure (specify):

(9) Unknown

## GLAZING

Glazing Damage from Impact Forces

15. WS 0 16. LF 0 17. RF 0 18. LR 0 19. RR 0

20. BL 0 21. Roof 8 22. Other 8

- (0) No glazing damage from impact forces
- (2) Glazing in place and cracked from impact forces
- (3) Glazing in place and holed from impact forces
- (4) Glazing out-of-place (cracked or not) and not holed from impact forces
- (5) Glazing out-of-place and holed from impact forces
- (6) Glazing disintegrated from impact forces
- (7) Glazing removed prior to accident
- (8) No glazing
- (9) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 0 24. LF 0 25. RF 0 26. LR 0 27. RR 0

28. BL 0 29. Roof 0 30. Other 0

- (0) No occupant contact to glazing or no glazing
- (1) Glazing contacted by occupant but no glazing damage
- (2) Glazing in place and cracked by occupant contact
- (3) Glazing in place and holed by occupant contact
- (4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
- (5) Glazing out-of-place by occupant contact and holed by occupant contact
- (6) Glazing disintegrated by occupant contact
- (9) Unknown if contacted by occupant

If No Glazing Damage **And** No Occupant Contact or No Glazing, Then Code IV31 Through IV46 As 0

Type of Window/Windshield Glazing

31. WS 0 32. LF 0 33. RF 0 34. LR 0 35. RR 0

36. BL 0 37. Roof 0 38. Other 0

- (0) No glazing contact and no damage, or no glazing
- (1) AS-1 — Laminated
- (2) AS-2 — Tempered
- (3) AS-3 — Tempered-tinted
- (4) AS-14 — Glass/Plastic
- (8) Other (specify):

(9) Unknown

Window Precrash Glazing Status

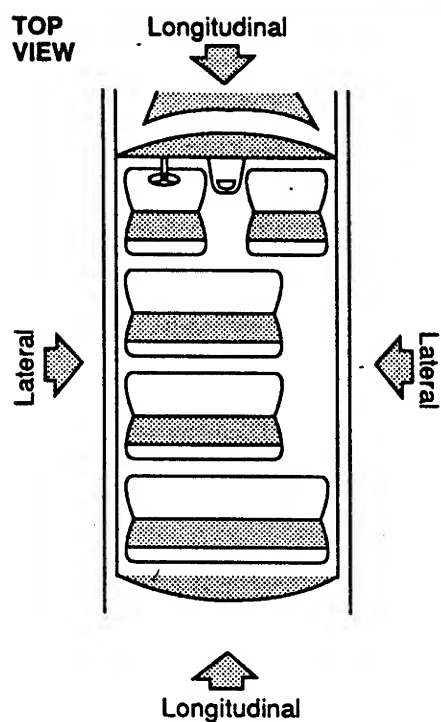
39. WS 0 40. LF 0 41. RF 0 42. LR 0 43. RR 0

44. BL 0 45. Roof 0 46. Other 0

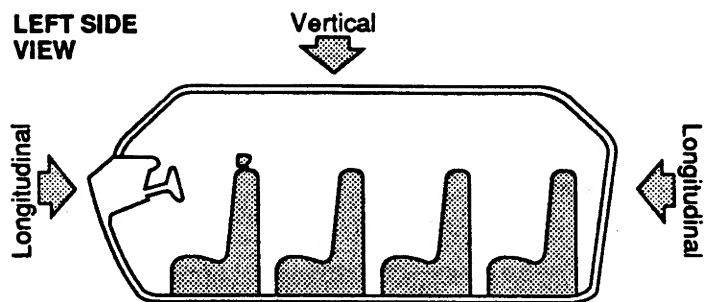
- (0) No glazing contact and no damage, or no glazing
- (1) Fixed
- (2) Closed
- (3) Partially opened
- (4) Fully opened
- (9) Unknown

# INTRUSION WORKSHEET

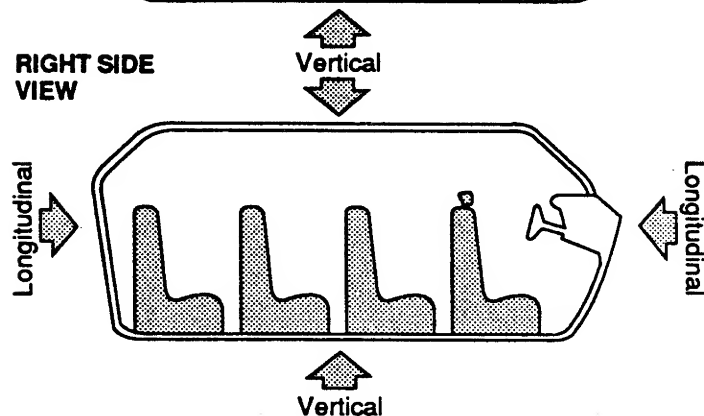
TOP  
VIEW



LEFT SIDE  
VIEW



RIGHT SIDE  
VIEW



Note: Sketch intruded areas

NO INTRUSION

LOCATION OF INTRUSION	INTRUDED COMPONENT	COMPARISON VALUE	INTRUDED VALUE	INTRUSION	DOMINANT CRUSH DIRECTION
		—	=		
		—	=		
		—	=		
		—	=		
		—	=		
		—	=		
		—	=		
		—	=		
		—	=		
		—	=		
		—	=		
		—	=		
		—	=		
		—	=		
		—	=		
		—	=		

Document no more than the 15 most severe intrusions

## OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. _____	48. _____	49. _____	50. _____
2nd	51. _____	52. _____	53. _____	54. _____
3rd	55. _____	56. _____	57. _____	58. _____
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

## LOCATION OF INTRUSION

## Front Seat

- (11) Left  
(12) Middle  
(13) Right

## Second Seat

- (21) Left  
(22) Middle  
(23) Right

## Third Seat

- (31) Left  
(32) Middle  
(33) Right

## Fourth Seat

- (41) Left  
(42) Middle  
(43) Right

- (97) Catastrophic  
(98) Other enclosed area (specify) \_\_\_\_\_

- (99) Unknown

## INTRUDING COMPONENT

## Interior Components

- (01) Steering assembly  
(02) Instrument panel left  
(03) Instrument panel center  
(04) Instrument panel right  
(05) Toe pan  
(06) A-pillar  
(07) B-pillar  
(08) C-pillar  
(09) D-pillar  
(10) Door panel (side)  
(12) Roof (or convertible top)  
(13) Roof side rail  
(14) Windshield  
(15) Windshield header  
(16) Window frame  
(17) Floor pan (includes sill)  
(18) Backlight header  
(19) Front seat back  
(20) Second seat back  
(21) Third seat back  
(22) Fourth seat back  
(23) Fifth seat back  
(24) Seat cushion  
(25) Back door/panel (e.g., tailgate)  
(26) Other interior component (specify): \_\_\_\_\_

NO INTRUSION

- (27) Side panel - forward of the A-pillar  
(28) Side panel - rear of the A-pillar

## Exterior Components

- (30) Hood  
(31) Outside surface of this vehicle (specify): \_\_\_\_\_  
(32) Other exterior object in the environment (specify): \_\_\_\_\_  
(33) Unknown exterior object  
(97) Catastrophic  
(98) Intrusion of unlisted component(s) (specify): \_\_\_\_\_  
(99) Unknown

## MAGNITUDE OF INTRUSION

- (1)  $\geq 1$  inch but  $< 3$  inches  
(2)  $\geq 3$  inches but  $< 6$  inches  
(3)  $\geq 6$  inches but  $< 12$  inches  
(4)  $\geq 12$  inches but  $< 18$  inches  
(5)  $\geq 18$  inches but  $< 24$  inches  
(6)  $\geq 24$  inches  
(7) Catastrophic  
(9) Unknown

## DOMINANT CRUSH DIRECTION

- (1) Vertical  
(2) Longitudinal  
(3) Lateral  
(7) Catastrophic  
(9) Unknown

**STEERING RIM/SPOKE DEFORMATION**

COMPARISON VALUE	—	DAMAGE VALUE	=	DEFORMATION
	—		=	
	—		=	
	—		=	
	—		=	

**STEERING COLUMN**87. Steering Column Type 2

- (1) Fixed column  
 (2) Tilt column  
 (3) Telescoping column  
 (4) Tilt and telescoping column  
 (8) Other column type (specify): \_\_\_\_\_

(9) Unknown

88. Blank X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-91 CDS.)

89. Blank X X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-91 CDS.)

90. Blank X X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-91 CDS.)

91. Blank X X X

(This variable is left blank so that numbering consistency can be maintained with the 1988-91 CDS.)

92. Steering Rim/Spoke Deformation 1

25 Code actual measured

deformation to the nearest inch.

(0) No steering rim deformation

(1-5) Actual measured value

(6) 6 inches or more

(8) Observed deformation cannot be measured

(9) Unknown

93. Location of Steering Rim/Spoke Deformation 05

(00) No steering rim deformation

*Quarter Sections*

(01) Section A

(02) Section B

(03) Section C

(04) Section D

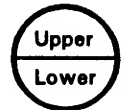
*Half Sections*

(05) Upper half of rim/spoke

(06) Lower half of rim/spoke

(07) Left half of rim/spoke

(08) Right half of rim/spoke



(09) Complete steering wheel collapse

(10) Undetermined location

(99) Unknown

**INSTRUMENT PANEL**94. Odometer Reading 0 2 1,000

20,276.4 miles—Code mileage to the nearest 1,000 miles

(000) No odometer

(001) Less than 1,500 miles

(300) 299,500 miles or more

(999) Unknown

Source: \_\_\_\_\_

95. Instrument Panel Damage from Occupant Contact? 0

(0) No

(1) Yes

(9) Unknown

96. Knee Bolsters Deformed from Occupant Contact? 0

(0) No

(1) Yes

(8) Not present

(9) Unknown

97. Did Glove Compartment Door Open During Collision(s)? 0

(0) No

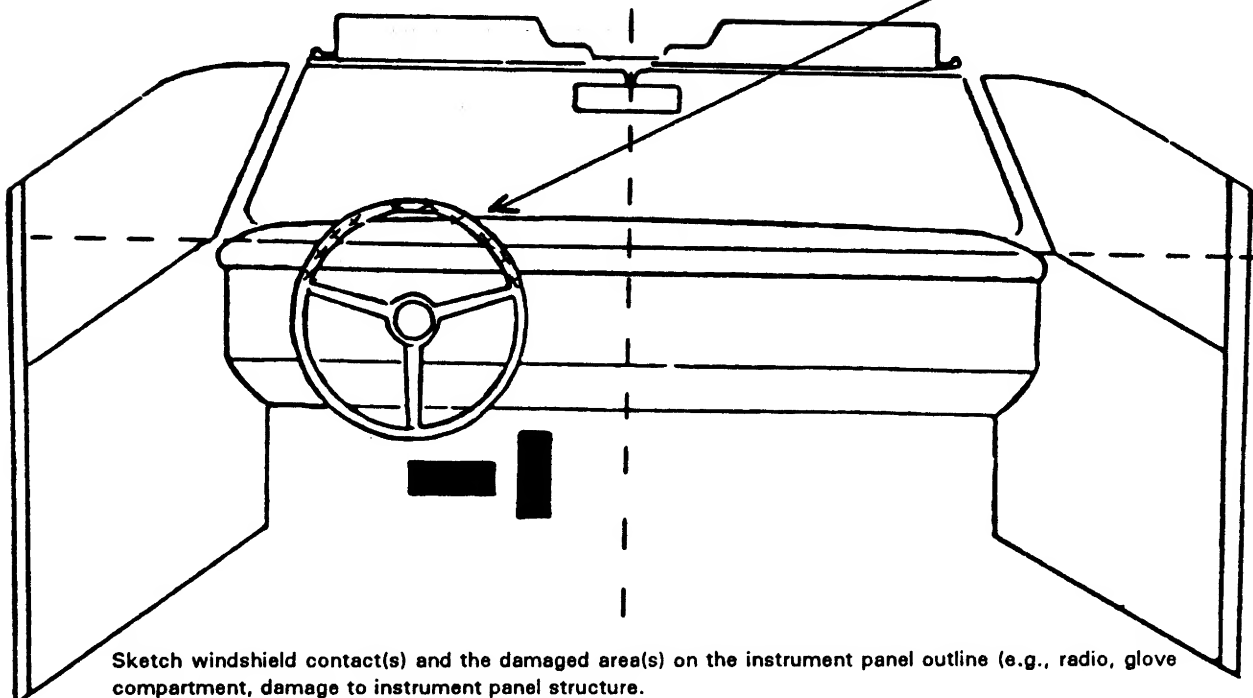
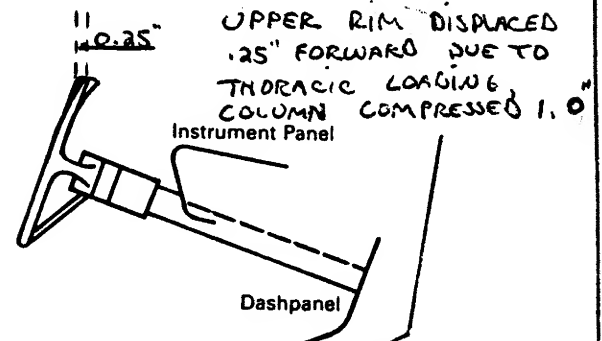
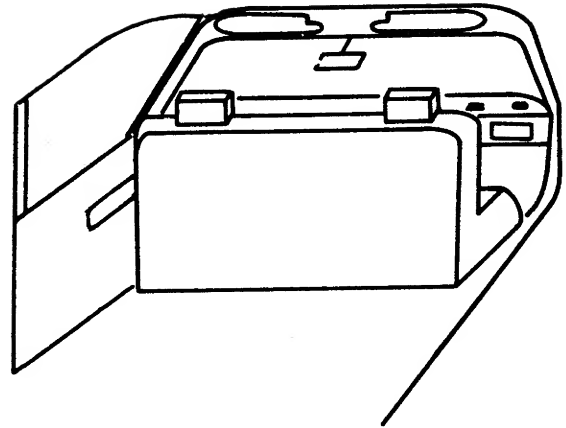
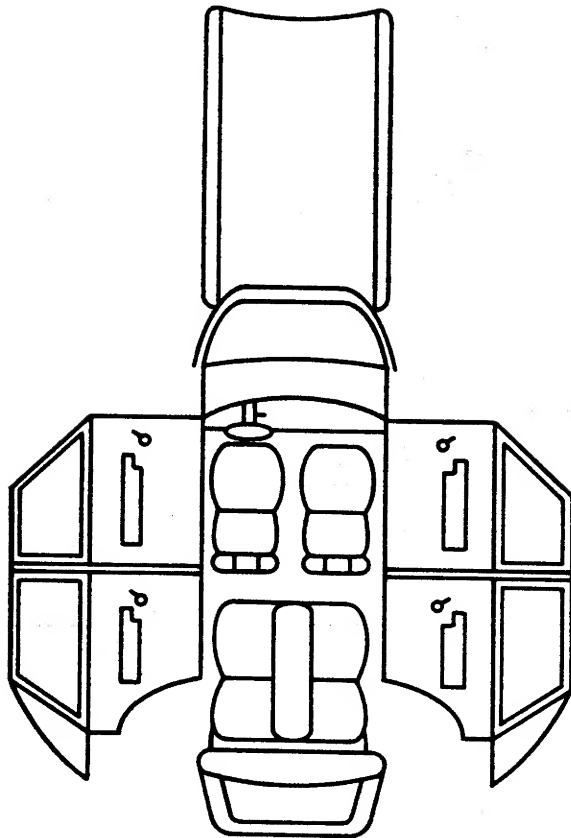
(1) Yes

(8) Not present

(9) Unknown

## VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

## POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	06	DRIVER (0)	TORSO	.25" OF RIM DISPLACEMENT, 1" OF	1
B				COLUMN COMPRESSION	
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					

## CODES FOR INTERIOR COMPONENTS

## FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify): \_\_\_\_\_

## LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify): \_\_\_\_\_
- (25) Left side window glass or frame

- (26) Left side window glass including one or more of the following: frame, window sill, A pillar, B pillar, or roof side rail.
- (27) Other left side object (specify): \_\_\_\_\_

- (28) Left side window sill

## RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify): \_\_\_\_\_
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A pillar, B pillar, or roof side rail.
- (37) Other right side object (specify): \_\_\_\_\_
- (38) Right side window sill

## INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): \_\_\_\_\_
- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify): \_\_\_\_\_
- (47) Interior loose objects

- (48) Child safety seat (specify): \_\_\_\_\_

- (49) Other interior object (specify): \_\_\_\_\_

## ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

## FLOOR

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

## REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): \_\_\_\_\_

## CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

**AUTOMATIC RESTRAINTS**

**NOTES:** Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

**AIR BAGS**

		Left	Right
<b>FIRST</b>	Availability/Function	(	0
	Deployment	4	0
	Failure	1	0

**Air Bag System Availability/Function**

- (0) Not equipped/not available  
(1) Air bag

**Non-functional**

- (2) Air bag disconnected (specify):  
\_\_\_\_\_  
(3) Air bag not reinstalled  
(9) Unknown

**Air Bag System Deployment**

- (0) Not equipped/not available  
(1) Air bag deployed during accident (as a result of impact)  
(2) Air bag deployed inadvertently just prior to accident  
(3) Air bag deployed, accident sequence undetermined  
(4) Nondeployed  
(5) Unknown if deployed  
(6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
(9) Unknown

**Did Air Bag System Fail?**

- (0) Not equipped/not available  
(1) No  
(2) Yes (specify):  
\_\_\_\_\_  
(9) Unknown

**AUTOMATIC BELTS**

		Left	Right
<b>FIRST</b>	Availability/Function	0	0
	Use	0	0
	Type	0	0
	Proper Use	0	0
	Failure Modes	0	0

**Automatic (Passive) Belt System Availability/Function**

- (0) Not equipped/not available  
(1) 2 point automatic belts  
(2) 3 point automatic belts  
(3) Automatic belts - type unknown

**Non-functional**

- (4) Automatic belts destroyed or rendered inoperative  
(9) Unknown

**Automatic (Passive) Belt System Use**

- (0) Not equipped/not available/destroyed or rendered inoperative  
(1) Automatic belt in use  
(2) Automatic belt not in use (manually disconnected, motorized track inoperative)  
(3) Automatic belt use unknown  
(9) Unknown

**Automatic (Passive) Belt System Type**

- (0) Not equipped/not available  
(1) Non-motorized system  
(2) Motorized system  
(9) Unknown

**Proper Use of Automatic (Passive) Belt System**

- (0) Not equipped/not available/not used  
(1) Automatic belt used properly  
(2) Automatic belt used properly with child safety seat

**Automatic Belt Used Improperly**

- (3) Automatic shoulder belt worn under arm  
(4) Automatic shoulder belt worn behind back  
(5) Automatic belt worn around more than one person  
(6) Lap portion of automatic belt worn on abdomen  
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):  
\_\_\_\_\_  
(8) Other improper use of automatic belt system (specify):  
\_\_\_\_\_  
(9) Unknown

**Automatic (Passive) Belt Failure Modes During Accident**

- (0) Not equipped/not available/not in use  
(1) No automatic belt failure(s)  
(2) Torn webbing (stretched webbing not included)  
(3) Broken buckle or latchplate  
(4) Upper anchorage separated  
(5) Other anchorage separated (specify):  
\_\_\_\_\_  
(6) Broken retractor  
(7) Combination of above (specify):  
(8) Other automatic belt failure (specify):  
\_\_\_\_\_  
(9) Unknown



**MANUAL RESTRAINTS**

**NOTES:** Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a Child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4	-	4
	Use	00	-	-
	Failure Modes	0	-	-
SECOND	Availability	4	3	4
	Use	-	-	-
	Failure Modes	-	-	-
THIRD	Availability	X		
	Use			
	Failure Modes			
OTHER	Availability	X		
	Use			
	Failure Modes			

**Manual (Active) Belt System Availability**

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

**Integral Belt Partially Destroyed**

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

**Manual (Active) Belt System Use**

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify): \_\_\_\_\_
- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown

(08) Other belt used (specify): \_\_\_\_\_

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify): \_\_\_\_\_
- (99) Unknown if belt used

**Manual (Active) Belt Failure Modes During Accident**

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_
- (6) Broken retractor
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other manual belt failure (specify): \_\_\_\_\_
- (9) Unknown \_\_\_\_\_

## CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

<b>Occupant Number</b>						
<b>1. Type of Child Safety Seat</b>						
<b>2. Child Safety Seat Orientation</b>						
<b>3. Child Safety Seat Harness Usage</b>						
<b>4. Child Safety Seat Shield Usage</b>						
<b>5. Child Safety Seat Tether Usage</b>						
<b>6. Child Safety Seat Make/Model</b>	<b>Specify Below for Each Child Safety Seat</b>					

### 1. Type of Child Safety Seat

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify):

- (8) Unknown child safety seat type
- (9) Unknown if child safety seat used

### 2. Child Safety Seat Orientation

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify):
- (09) Unknown orientation

- Designed for Forward Facing for This Age/Weight
- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify):

- (19) Unknown orientation

- Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify):

- (29) Unknown orientation

- (99) Unknown if child safety seat used

### 3. Child Safety Seat Harness Usage

### 4. Child Safety Seat Shield Usage

- 5. Child Safety Seat Tether Usage
- Note: Options Below Are Used for Variables 3-5.
- (00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used

- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

- (99) Unknown if child safety seat used

- 6. Child Safety Seat Make/Model
- (Specify make/model and occupant number)

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**HEAD RESTRAINTS/SEAT EVALUATION**

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
F I R S T	Head Restraint Type/Damage	3	-	3
	Seat Type	01	-	01
	Seat Performance	1	-	1
	Seat Orientation	1	-	1
S E C O N D	Head Restraint Type/Damage	0	0	0
	Seat Type	03	03	03
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
T H I R D	Head Restraint Type/Damage	X		
	Seat Type			
	Seat Performance			
	Seat Orientation			
O T H E R	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			

**Head Restraint Type/Damage by Occupant at This Occupant Position**

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other Specify: \_\_\_\_\_

(9) Unknown \_\_\_\_\_

**Seat Type (this Occupant Position)**

- (00) No seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): \_\_\_\_\_

- (10) Box mounted seat (i.e., van type)
- (99) Unknown

**Seat Performance (this Occupant Position)**

- (0) No seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed specify: \_\_\_\_\_
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

**Seat Orientation (this Occupant Position)**

- (0) No seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

**DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E., UNUSUAL OCCUPANT CONTACT PATTERN)**

**EJECTION/ENTRAPMENT DATA**

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

**EJECTION**      No ☒      Yes ☐

Describe indications of ejection and body parts involved in partial ejection(s):

---



---



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Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

**Ejection**

- (1) Complete ejection
- (1) Partial ejection
- (3) Ejection, Unknown degree
- (9) Unknown

**Ejection Area**

- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear

**(7) Roof**

- (8) Other area (e.g., back of pickup, etc.) (specify):

(9) Unknown

**Ejection Medium**

- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify):

**(5) Integral structure**

- (8) Other medium (specify):

(9) Unknown

**Medium Status (Immediately Prior to Impact)**

- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

**ENTRAPMENT**      No ☒      Yes ☐

Describe entrapment mechanism:

---



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Component(s):

(Note in vehicle interior diagram)

**APPENDIX E**  
**NASS OCCUPANT FORMS**



# OCCUPANT ASSESSMENT FORM

1. ~~Primary Sampling Unit Number~~ \_\_\_\_\_
2. Case Number ~~Stratum~~ 92-20
3. Vehicle Number 01
4. Occupant Number 01

## OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 50  
Code actual age at time of accident.  
(00) Less than one year old (specify by month):  
(97) 97 years and older  
(99) Unknown
6. Occupant's Sex 1  
(1) Male  
(2) Female  
(9) Unknown
7. Occupant's Height 175.3 cm 69  
Code actual height to the nearest inch.  
(99) Unknown
8. Occupant's Weight 76.5 kg 170  
Code actual weight to the nearest pounds.  
(999) Unknown
9. Occupant's Role 1  
(1) Driver  
(2) Passenger  
(9) Unknown
10. Occupant's Seat Position 11  
*Front Seat*  
(11) Left side  
(12) Middle  
(13) Right side  
(14) Other (specify):  
(15) On or in the lap of another occupant  
*Second Seat*  
(21) Left side  
(22) Middle  
(23) Right side  
(24) Other (specify):  
(25) On or in the lap of another occupant  
*Third Seat*  
(31) Left side  
(32) Middle  
(33) Right side  
(34) Other (specify):  
(35) On or in the lap of another occupant  
*Fourth Seat*  
(41) Left side  
(42) Middle  
(43) Right side  
(44) Other (specify):  
(45) On or in the lap of another occupant  
(97) In or on unenclosed area  
(98) Other seat (specify):  
(99) Unknown

11. Occupant Posture 1  
(0) Normal posture  
(1) Abnormal posture (specify):  
LEANING TO RIGHT  
(9) Unknown

## EJECTION/ENTRAPMENT

12. Ejection 0  
(0) No ejection  
(1) Complete ejection  
(2) Partial ejection  
(3) Ejection, unknown degree  
(9) Unknown
13. Ejection Area 0  
(0) No ejection  
(1) Windshield  
(2) Left front  
(3) Right front  
(4) Left rear  
(5) Right rear  
(6) Rear  
(7) Roof  
(8) Other area (e.g., back of pickup, etc.)  
(specify):  
(9) Unknown
14. Ejection Medium 0  
(0) No ejection  
(1) Door/hatch/tailgate  
(2) Nonfixed roof structure  
(3) Fixed glazing  
(4) Nonfixed glazing (specify):  
(5) Integral structure  
(8) Other medium (specify):  
(9) Unknown
15. Medium Status (Immediately Prior To Impact) 0  
(0) No ejection  
(1) Open  
(2) Closed  
(3) Integral structure  
(9) Unknown
16. Entrapment 0  
(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)  
(0) Not entrapped  
(1) Entrapped  
(9) Unknown

**RESTRAINT SYSTEM AND SEAT EVALUATION****17. Manual (Active) Belt System Availability** 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)

(8) Other belt (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

**18. Manual (Active) Belt System Use** 0 0

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): \_\_\_\_\_

(02) Shoulder belt \_\_\_\_\_

(03) Lap belt \_\_\_\_\_

(04) Lap and shoulder belt \_\_\_\_\_

(05) Belt used—type unknown \_\_\_\_\_

(08) Other belt used (specify): \_\_\_\_\_

(12) Shoulder belt used with child safety seat \_\_\_\_\_

(13) Lap belt used with child safety seat \_\_\_\_\_

(14) Lap and shoulder belt used with child safety seat \_\_\_\_\_

(15) Belt used with child safety seat—type unknown \_\_\_\_\_

(18) Other belt used with child safety seat (specify): \_\_\_\_\_

(99) Unknown if belt used \_\_\_\_\_

**19. Proper Use of Manual (Active) Belts** 0

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

(8) Other improper use of manual belt system (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

**20. Manual (Active) Belt Failure Modes During Accident** 0

- (0) No manual belt used
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_

(6) Broken retractor \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other manual belt failure (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

**21. Air Bag System Availability/Function** 1

- (0) Not equipped/not available
- (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify): \_\_\_\_\_

(3) Air bag not reinstalled \_\_\_\_\_

(9) Unknown \_\_\_\_\_

**22. Air Bag System Deployment** 4

- (0) Not equipped/not available
- (1) Air bag deployed during accident (as a result of impact)
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (6) Air bag deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (9) Unknown

**23. Did Air Bag System Fail?** 1

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

**24. Police Reported Restraint Use** 0

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): \_\_\_\_\_

(8) Restrained, type unknown \_\_\_\_\_

(9) Police indicated "unknown" \_\_\_\_\_

**25. Head Restraint Type/Damage by Occupant at This Occupant Position** 3

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): \_\_\_\_\_

(9) Unknown \_\_\_\_\_

26. Seat Type (this Occupant Position) 0 1
- (00) Occupant not seated or no seat  
 (01) Bucket  
 (02) Bucket with folding back  
 (03) Bench  
 (04) Bench with separate back cushions  
 (05) Bench with folding back(s)  
 (06) Split bench with separate back cushions  
 (07) Split bench with folding back(s)  
 (08) Pedestal (i.e., column supported)  
 (09) Other seat type (specify): \_\_\_\_\_
- (10) Box mounted seat (i.e., van type)  
 (99) Unknown

27. Seat Performance (this Occupant Position) 1
- (0) Occupant not seated or no seat  
 (1) No seat performance failure(s)  
 (2) Seat adjusters failed  
 (3) Seat back folding locks or "seat back" failed  
 (4) Seat track/anchors failed  
 (5) Deformed by impact of occupant  
 (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

**CHILD SAFETY SEAT**

28. Child Safety Seat Make/Model 0 0 0
- (000) No child safety seat  
 Applicable codes are found in your NASS CDS Data Collection, Coding and Editing  
 (950) Built-in child safety seat  
 (997) Other make/model (specify): \_\_\_\_\_
- (998) Unknown make/model  
 (999) Unknown if child safety seat used

29. Type of Child Safety Seat 0
- (0) No child safety seat  
 (1) Infant seat  
 (2) Toddler seat  
 (3) Convertible seat  
 (4) Booster seat  
 (7) Other type child safety seat (specify): \_\_\_\_\_
- (8) Unknown child safety seat type  
 (9) Unknown if child safety seat used

30. Child Safety Seat Orientation 0 0
- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight*  
 (01) Rear facing  
 (02) Forward facing  
 (08) Other orientation (specify): \_\_\_\_\_
- (09) Unknown orientation
- Designed For Forward Facing for This Age/Weight*  
 (11) Rear facing  
 (12) Forward facing  
 (18) Other orientation (specify): \_\_\_\_\_
- (19) Unknown orientation
- Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight*  
 (21) Rear facing  
 (22) Forward facing  
 (28) Other orientation (specify): \_\_\_\_\_
- (29) Unknown orientation
- (99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 0 0
32. Child Safety Seat Shield Usage 0 0
33. Child Safety Seat Tether Usage 0 0
- Note: Options below applicable to Variables OA31-OA33.  
 (00) No child safety seat

- Not Designed With Harness/Shield/Tether*  
 (01) After market harness/shield/tether added, not used  
 (02) After market harness/shield/tether used  
 (03) Child safety seat used, but no after market harness/shield/tether added  
 (09) Unknown if harness/shield/tether added or used

- Designed With Harness/Shield/Tether*  
 (11) Harness/shield/tether not used  
 (12) Harness/shield/tether used  
 (19) Unknown if harness/shield/tether used

- Unknown If Designed With Harness/Shield/Tether*  
 (21) Harness/shield/tether not used  
 (22) Harness/shield/tether used  
 (29) Unknown if harness/shield/tether used
- (99) Unknown if child safety seat used



**INJURY CONSEQUENCES**34. Injury Severity (Police Rating) 2

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment - Mortality 4

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify):

(9) Unknown

36. Type Of Medical Facility (for Initial Treatment) 2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):

(9) Unknown

37. Hospital Stay 00

- (00) Not Hospitalized

Code the number of days (up through 60) that the occupant stayed in hospital.

- (61) 61 days or more
- (99) Unknown

38. Working Days Lost 00

Code the number of days (up through 60) that the occupant lost from work due to the accident

- (00) No working days lost

- (61) 61 days or more

- (62) Fatally injured

- (97) Not working prior to accident

- (99) Unknown

*went on vacation for 2 weeks following crash (HOURS)*39. Time to Death 00

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 24 hours, 2 days = 48, ... n days = 24 + n up through 30 days = 720)

- (00) Not fatal

- (96) Fatal - ruled disease

- (99) Unknown

40. 1st Medically Reported Cause of Death 0041. 2nd Medically Reported Cause of Death 0042. 3rd Medically Reported Cause of Death 00

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes

- (97) Other result (specify):

(99) Unknown

43. Number of Recorded Injuries for This Occupant 02

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries

- (97) Injured, details unknown

- (99) Unknown if injured

**AUTOMATIC BELT SYSTEM**44. Automatic (Passive) Belt System Availability/ Function 0

- (0) Not equipped/not available  
 (1) 2 point automatic belts  
 (2) 3 point automatic belts  
 (3) Automatic belts - type unknown

*Non-functional*

- (4) Automatic belts destroyed or rendered inoperative  
 (9) Unknown

45. Automatic (Passive) Belt System Use 0

- (0) Not equipped/not available/destroyed or rendered inoperative  
 (1) Automatic belt in use  
 (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):  
 (3) Automatic belt use unknown  
 (9) Unknown

46. Automatic (Passive) Belt System Type 0

- (0) Not equipped/not available  
 (1) Non-motorized system  
 (2) Motorized system  
 (9) Unknown

47. Proper Use of Automatic (Passive) Belt System 0

- (0) Not equipped/not available/not used  
 (1) Automatic belt used properly  
 (2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*

- (3) Automatic shoulder belt worn under arm  
 (4) Automatic shoulder belt worn behind back  
 (5) Automatic belt worn around more than one person  
 (6) Lap portion of automatic belt worn on abdomen  
 (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):  
 (8) Other improper use of automatic belt system (specify):  
 (9) Unknown

48. Automatic (Passive) Belt Failure Modes During Accident 0

- (0) Not equipped/not available/not in use  
 (1) No automatic belt failure(s)  
 (2) Torn webbing (stretched webbing not included)  
 (3) Broken buckle or latchplate  
 (4) Upper anchorage separated  
 (5) Other anchorage separated (specify):  
 (6) Broken retractor  
 (7) Combination of above (specify):  
 (8) Other automatic belt failure (specify):  
 (9) Unknown

49. Seat Orientation (this Occupant Position) 1

- (0) Occupant not seated or no seat  
 (1) Forward facing seat  
 (2) Rear facing seat  
 (3) Side facing seat (inward)  
 (4) Side facing seat (outward)  
 (8) Other (specify):  
 (9) Unknown

**TRAUMA DATA**50. Glasgow Coma Scale (GCS) Score 02

- (at Medical Facility)  
 (00) Not injured  
 (01) Injured - not treated at medical facility  
 (02) No GCS Score at medical facility  
 (03-15) Code the actual value of the initial GCS Score recorded at medical facility.  
 (97) Injured, details unknown  
 (99) Unknown if injured

51. Was the Occupant Given Blood? 1

- (1) No - blood not given  
 (2) Yes - blood given (specify units):  
 (9) Unknown if blood given

52. Arterial Blood Gases (ABG) - HCO<sub>3</sub> 01

- (00) Not injured  
 (01) Injured, ABGs not measured or reported  
 (02-50) Code the actual value of the HCO<sub>3</sub>  
 (96) ABGs reported, HCO<sub>3</sub> unknown  
 (97) Injured, details unknown  
 (99) Unknown if injured

UPDATE CANDIDATE? NO ☒ YES [ ]OCCUPANT INJURY FORM INCLUDED WITH INITIAL SUBMISSION? NO [ ] YES ☒

\*\*\* STOP HERE \*\*\*  
 IF THERE ARE NO RECORDED INJURIES  
 (I.E., OA43 = 00,97,99)



## OCCUPANT INJURY FORM

1. ~~Primary Sampling Unit Number~~ \_\_\_\_\_

3. Vehicle Number \_\_\_\_\_

2. Case Number --Stratum \_\_\_\_\_

4. Occupant Number \_\_\_\_\_

### INJURY DATA

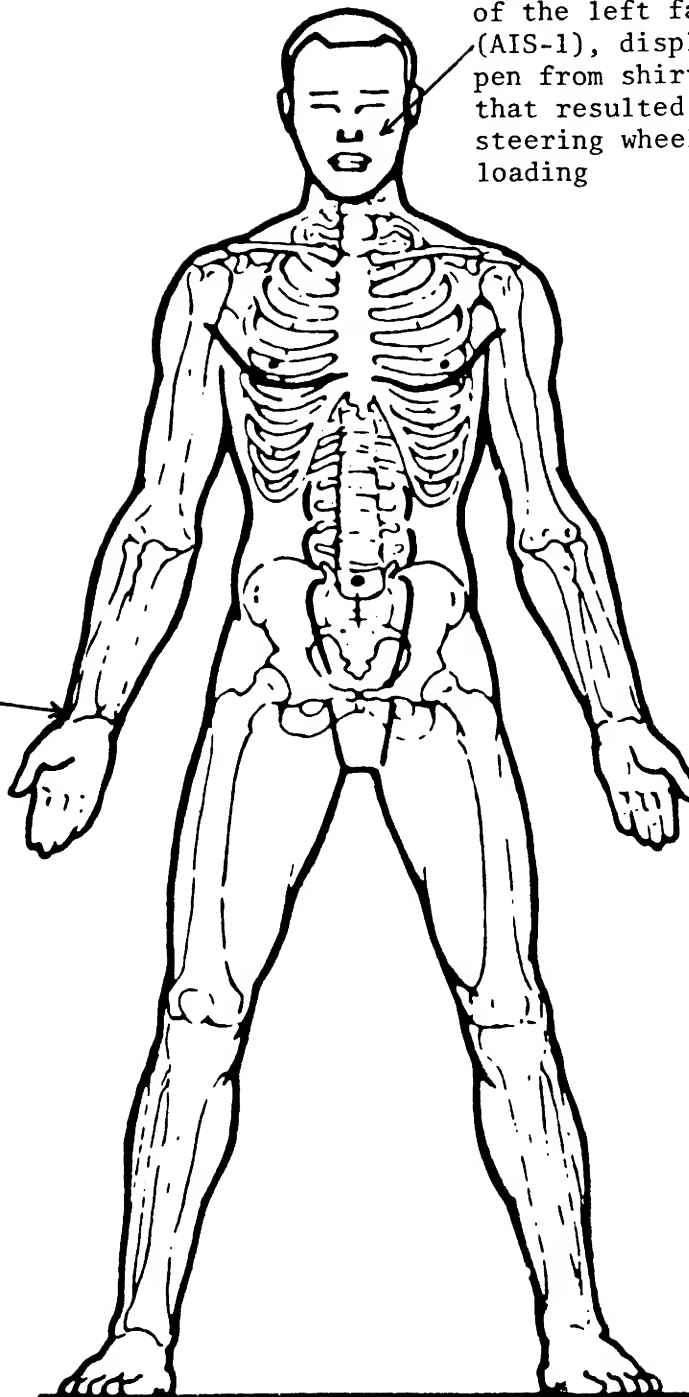
Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	O.I.C.-A.I.S.				Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.	
		Body Region	Aspect	Lesion	System Organ					A.I.S. Severity
1st	5. <u>3</u>	6. <u>W</u>	7. <u>B</u>	8. <u>A</u>	9. <u>I</u>	10. <u>1</u>	11. <u>49</u>	12. <u>1</u>	13. <u>1</u>	14. <u>00</u>
2nd	15. <u>3</u>	16. <u>F</u>	17. <u>L</u>	18. <u>L</u>	19. <u>I</u>	20. <u>1</u>	21. <u>06</u>	22. <u>1</u>	23. <u>2</u>	24. <u>00</u>
3rd	25. ____	26. ____	27. ____	28. ____	29. ____	30. ____	31. ____	32. ____	33. ____	34. ____
4th	35. ____	36. ____	37. ____	38. ____	39. ____	40. ____	41. ____	42. ____	43. ____	44. ____
5th	45. ____	46. ____	47. ____	48. ____	49. ____	50. ____	51. ____	52. ____	53. ____	54. ____
6th	55. ____	56. ____	57. ____	58. ____	59. ____	60. ____	61. ____	62. ____	63. ____	64. ____
7th	65. ____	66. ____	67. ____	68. ____	69. ____	70. ____	71. ____	72. ____	73. ____	74. ____
8th	75. ____	76. ____	77. ____	78. ____	79. ____	80. ____	81. ____	82. ____	83. ____	84. ____
9th	85. ____	86. ____	87. ____	88. ____	89. ____	90. ____	91. ____	92. ____	93. ____	94. ____
10th	95. ____	96. ____	97. ____	98. ____	99. ____	100. ____	101. ____	102. ____	103. ____	104. ____

Superficial laceration  
of the left face  
(AIS-1), displaced  
pen from shirt pocket  
that resulted from  
steering wheel  
loading

**AGE** 50.....  
**SEX** Male....  
**WT.** 170 lbs..  
**HT.** 69".....

Small abrasion to the  
dorsal aspect of the  
right wrist (AIS-1),  
center mounted  
radio equipment



**SOURCE OF INJURY DATA****OFFICIAL**

- (1) Autopsy records with or without hospital medical records
- (2) Hospital medical records other than emergency room [e.g., discharge summary]
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

**UNOFFICIAL**

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): \_\_\_\_\_
- (9) Police

**INJURY SOURCE****FRONT**

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify): \_\_\_\_\_

**LEFT SIDE**

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify): \_\_\_\_\_
- (25) Left side window glass or frame

- (26) Left side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail.
- (27) Other left side object (specify): \_\_\_\_\_

- (28) Left side window sill

**RIGHT SIDE**

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify): \_\_\_\_\_
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A pillar, B pillar, or roof side rail.
- (37) Other right side object (specify): \_\_\_\_\_

- (38) Right side window sill

**INTERIOR**

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): \_\_\_\_\_
- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify): \_\_\_\_\_
- (47) Interior loose objects
- (48) Child safety seat (specify): \_\_\_\_\_
- (49) Other interior object (specify): \_\_\_\_\_

**ROOF**

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

**FLOOR**

- (56) Floor (including toe pan)
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

**REAR**

- (60) Backlight (rear window)

- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): \_\_\_\_\_

**EXTERIOR of OCCUPANT'S VEHICLE**

- (65) Hood
- (66) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify): \_\_\_\_\_
- (68) Unknown exterior objects

**EXTERIOR OF OTHER MOTOR VEHICLE**

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify): \_\_\_\_\_
- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify): \_\_\_\_\_
- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify): \_\_\_\_\_
- (83) Unknown exterior of other motor vehicle

**OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT**

- (84) Ground
- (85) Other vehicle or object (specify): \_\_\_\_\_
- (86) Unknown vehicle or object

**NONCONTACT INJURY**

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify): \_\_\_\_\_
- (93) Air bag exhaust gases
- (97) Injured, unknown source

**INJURY SOURCE CONFIDENCE LEVEL**

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

**DIRECT/INDIRECT INJURY**

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

**OCCUPANT INJURY CLASSIFICATION****O.I.C. Body Region**

- (M) Abdomen
- (Q) Ankle-foot
- (A) Arm (upper)
- (B) Back-thoracolumbar spine
- (C) Chest
- (E) Elbow
- (F) Face
- (R) Forearm
- (H) Head-skull
- (U) Injured, unknown region
- (K) Knee
- (L) Leg (lower)
- (Y) Lower limb(s) (whole or unknown part)
- (N) Neck-cervical spine
- (P) Pelvic-hip
- (S) Shoulder
- (T) Thigh
- (X) Upper limb(s) (whole or unknown part)
- (O) Whole body
- (W) Wrist-hand

**Aspect of Injury**

- (A) Anterior-front
- (B) Bilateral (rib fracture only)
- (C) Central
- (I) Inferior-lower
- (U) Injured, unknown aspect
- (L) Left
- (P) Posterior-back
- (R) Right
- (S) Superior-upper
- (W) Whole region

**Lesion**

- (A) Abrasion
- (M) Amputation
- (V) Avulsion
- (B) Burn
- (K) Concussion
- (C) Contusion
- (N) Crush
- (G) Detachment, separation
- (D) Dislocation

- (F) Fracture
- (Z) Fracture and dislocation
- (U) Injured, unknown lesion
- (L) Laceration
- (O) Other
- (P) Perforation, puncture
- (R) Rupture
- (S) Sprain
- (T) Strain
- (E) Total severance, transection

**System/Organ**

- (W) All systems in region
- (A) Arteries-veins
- (B) Brain
- (D) Digestive
- (E) Ears
- (O) Eye
- (H) Heart
- (U) Injured, unknown system
- (I) Integumentary
- (J) Joints
- (K) Kidneys

- (L) Liver
- (M) Muscles
- (N) Nervous system
- (P) Pulmonary-lungs
- (R) Respiratory
- (S) Skeletal
- (C) Spinal cord
- (Q) Spleen
- (T) Thyroid, other endocrine gland
- (V) Vertebrae

**Abbreviated Injury Scale**

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

APPENDIX F

 POLICE FLEET CRASH DATA

MAYOR  
[REDACTED]  
MAYOR PRO TEM  
[REDACTED]  
COUNCILMEMBERS  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

BEST AVAILABLE COPY

[REDACTED]  
CITY MANAGER  
[REDACTED]  
CITY ATTORNEY  
[REDACTED]  
CLERK OF THE COUNCIL  
[REDACTED]

[REDACTED] 1992

Calspan Corporation  
[REDACTED]

P.O. [REDACTED]  
[REDACTED] New York [REDACTED]

Subject: SIR System Report - Caprice Air Bag

Dear Mr. [REDACTED]

Attached are copies of the letter you requested, from [REDACTED] of the [REDACTED] Branch of the Chevrolet Motor Division of General Motors Corporation in [REDACTED], CA [REDACTED], regarding the engineering report on the SIR System.

Please feel free to call if further questions or information is needed.

Yours truly,  
[REDACTED]  
[REDACTED]  
[REDACTED]

/attachments



[REDACTED] 1992

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] CA [REDACTED]

Dear Mr. [REDACTED]

Thank you for your contact concerning the Supplemental Restraint System (SIR) in a 1991 Chevrolet Caprice (Vehicle Identification Number 1G1BL5378MR[REDACTED]). The integrity of SIR systems and the confidence in these systems on the part of vehicle operators is extremely important to General Motors. We are very concerned about any reports questioning the manner in which the SIR system functions, and appreciate the opportunity to investigate the incident you reported. All materials related to the incident have been analyzed by a special Engineering Analysis group with specific responsibility for SIR systems.

The engineering report concluded that the SIR system was functioning properly before, during, and after the incident. Additionally, there have not been any malfunctions during the vehicle's entire history of 2999 ignition cycles recorded by the Diagnostic and Energy Reserve Module (DERM). This includes the ignition cycle during which the accident occurred.

A review of the facts and information indicate the SIR should not have deployed during impact with the pole. Photographs showing damage sustained by the vehicle indicate that the energy level involved in this impact was not sufficient magnitude to deploy the SIR.

In addition to providing the above information from an engineering analysis group we would like to provide you the opportunity to review a recent telecast that was developed to familiarize GM service personnel (and dealership staff) with the principles of operation of GM air bag systems. A video tape copy of this telecast will be available in the next few weeks. I'll contact you as soon as the material is available to schedule a meeting at which you and interested members of the [REDACTED] Police Department can view the information if you so desire.



Thank you for the opportunity to respond to your questions. If you have any other issues please feel free to contact me at [REDACTED]

Very truly yours,

[REDACTED]  
[REDACTED]  
[REDACTED]  
Fleet Service Manager

[REDACTED]  
cc: [REDACTED]

3.3  
[REDACTED]  
[REDACTED]  
QUEST REGIONAL BROADCAST  
QUEST FOR REGIONAL BROADCAST

TO ALL POLICE, SHERIFF, AND STATE LAW ENFORCEMENT  
AGENCIES NATIONWIDE

SUBJECT: 1991 CHEVROLET CAPRICE- SAFETY INFO

[REDACTED] POLICE DEPARTMENT IS EXPERIENCING PROBLEMS WITH  
THE AIR BAG NOT ACTIVATING IN THIS VEHICLE. APPROXIMATELY  
TWO WEEKS AGO, ONE OF OUR PATROL UNITS WAS IN A PURSUIT, HIT  
A METAL CONCRETE REINFORCED POLE, AND THE AIR BAG DID NOT  
ACTIVATE. THERE WAS MAJOR DAMAGE TO THE VEHICLE AND THE  
DRIVER RECEIVED BRUISES AND BUMPS.

[REDACTED] IN ANOTHER PURSUIT, A CITIZEN COLLIDED WITH A  
PATROL UNIT. THERE WAS LEFT FRONT FENDER DAMAGE, THE GRILLE  
AREA OF THE HOOD WAS SMASHED, THE FENDER BUCKLED, AND THERE  
WAS MODERATE DAMAGE TO THE VEHICLE, AND AGAIN THE AIR BAG  
DID NOT ACTIVATE.

CHEVROLET/GM IS LOOKING INTO THE PROBLEMS.

IF ANY AGENCY WITH SIMILAR PROBLEMS, PLEASE CONTACT [REDACTED]  
THE [REDACTED] POLICE DEPARTMENT VIA TELETYPE OR CALL  
[REDACTED] ANY HELP IS APPRECIATED.

P/[REDACTED] PD  
RCI

NLET NBR 01600 AT [REDACTED] 092  
T [REDACTED] 0307 NBRD 0103 AT [REDACTED] MRI [REDACTED]

